

THE PHILLIPS ACADEMY SUMMER SESSION 1994



The Phillips Academy Summer Session

30 June-10 August 1994



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Statement of Purpose



Phillips Academy is a residential high school that seeks students of character and intelligence from diverse ethnic, racial, socioeconomic and geographic backgrounds.

The academy's scholastic program is designed to foster excellence in all disciplines associated with the liberal arts tradition. Faculty members guide students to master skills, to acquire knowledge and to think critically, creatively and independently. The school strives to help young people achieve their potential not only in intellectual understanding, but also in aesthetic sensitivity, physical well-being, athletic prowess and moral decisiveness so that they may lead productive, responsible lives.

Committed to discovering authentic sources of community, the academy strives to understand and respect the differences that arise in a multicultural setting. Academic and residential programs encourage sensitivity to issues of gender, race and social class. The school's residential structure fosters close association between faculty and students for personal, social and intellectual development.

Andover's 1778 Constitution charges the Academy to prepare "youth from every quarter" to understand that "goodness without knowledge is weak and feeble; yet knowledge without goodness is dangerous." This obligation challenges students in mind, body and spirit to see beyond themselves and to go beyond the familiar; to remain committed to developing what is finest in themselves and others, for others and themselves.

Meredith Price

James Bunnell 1976–1984

Phyllis W. Powell

1974-1975

1985-1989

Elwin Sykes 1990–1993

Stephen Sorota

Directors of Summer Session

1942	1957–1959
Alan R. Blackmer	Robert Hulburd
1943–1944	1960–1962
Frank Benton	Harold Owen
1945–1947	1963–1965
Floyd Humphries	Frederick Peterson
1948–1950	1966–1968
Richard Pieters	Ronn Minné
1951–1953	1969–1970
Stephen Whitney	Jerry Foster
1954–1956	1971–1973

Wilbur I Bender



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Phillips Academy

Phillips Academy, Andover, is the oldest incorporated boarding school in the nation, now in its 216th year. From its beginning the academy has been open to youth from all sections of the country and from abroad, seeking always to develop in its students sound scholarship, character and self-reliance in a tradition of national service and devotion to democratic ideals.

The buildings and facilities of the academy are located on 450 acres of landscaped campus. Particularly noteworthy are the Addison Gallery of American Art, the Peabody Museum of Archaeology, the Moncrieff Cochran Sanctuary, the Arts and Communications Center, the 102,000-volume Oliver Wendell Holmes Library and the impressive athletic complex. In addition are Phillips Academy's six classroom buildings: Charles Bulfinch Hall (English), Thomas Evans Hall (sciences), William B. Graves Hall (music), Samuel F. B. Morse Hall (mathematics and computer), Eliphalet Pearson Hall (classics) and Samuel Phillips Hall (history and modern foreign languages).

At the center of Andover's intellectual life is the Oliver Wendell Holmes Library, named after the famous doctor and poet who was a member of the class of 1825. The building, which consists of the original 1930 structure of 30,000 square feet and an addition of 30,000 square feet completed in 1988, contains the academy's main library collection. The stacks are open to students. In addition to academic work, students and teachers use the library collections to explore new fields of interest and to read casually. The library subscribes to over 260 American and foreign periodicals and to daily papers from cities throughout the country. A microfilm file of *The New York Times* is available. Particular library treasures are the Jansson Atlas, printed in Amsterdam in 1657, papers and books of Oliver Wendell Holmes and one of the world's leading collections of Vergiliana.

The Computer Center, located in the lower level of the Oliver Wendell Holmes Library, is available for student use. It houses two computer classrooms and a third lab filled with an array of Macintosh, Apple IIe and Zenith (IBM compatible) computers, Imagewriter, Laserwriter and various other letter-quality printers. A wide range of software is available, and instruction in computer usage is provided.

The town of Andover, Massachusetts, incorporated in 1646, is an attractive elm-shaded community twenty-five miles north of Boston and about the same distance west from Salem, Gloucester and the sea. Both the town and the academy are rich in history. Judge Samuel Phillips, the academy's founder, and Eliphalet Pearson, its first master, worked

together manufacturing gunpowder for the Revolutionary forces before they turned to the building of a school. George Washington, a close friend of Samuel Phillips and a frequent visitor to Andover, sent his nephews to the academy. In 1789, during his term as President of the United States, Washington held a reception on horseback for the students and townspeople on the Old Training Field, now the site of the Fuller Memorial Carillon Tower. Paul Revere engraved the school seal; John Hancock signed its charter. As a seminarian at Andover, Samuel Smith wrote the words of *My Country 'Tis of Thee* in one of the academy buildings, now called America House. Harriet Beecher Stowe lived and worked for many years on Andover Hill and is buried in the academy cemetery.



The Summer Session

Andover's Summer Session extends the mission of Phillips Academy to serve "youth from every quarter" by offering to students from varied backgrounds the academy's standards of educational excellence, packaged in special courses, activities and a residential program, all of which use to good advantage the unique features of New England's summer months.

The teaching faculty, composed of teachers from Phillips Academy and other private and public schools and colleges, have been selected for their excellence in the classroom and their understanding of young people. The senior teaching staff is augmented by a corps of some 40 teaching assistants, recent college graduates, whose enthusiasm for learning serves students as a model for serious but joyful intellectual inquiry. Teaching assistants work in the classroom, assist in Afternoon Activities and serve as advisors in the dormitories. The faculty offer courses which challenge and extend the intellectual, aesthetic and ethical interests of able students from public and private non-residential secondary schools. All courses demand rigorous application, while many offer subjects or approaches rarely found in the conventional high school curriculum. Average class size is fourteen.

Students may choose courses that enable them to explore fields in which they have already demonstrated competence, or they may choose to begin work in a new field. Applicants should take note that the Summer Session's courses are for strongly motivated students. Given the professional qualifications of the instructors, the workload of 18 hours per week in class and the high caliber of the students, all courses proceed rapidly and probe deeply.

One of the most pleasant and beneficial experiences of the Summer Session is living and working with other students who represent an extraordinary diversity of geography, religion, race and economic circumstances. In 1993 the 665 students (276 boys and 389 girls) came from 41 states, the District of Columbia, Puerto Rico and 30 foreign countries; more than 35 percent received full or partial scholarships.

The Summer Session, in accordance with Phillips Academy's policy, admits students of any race, color, sex, sexual orientation, national and ethnic origin.

Dormitory Life

Summer Session "graduates" invariably point to their dormitory experience as a source of learning and enjoyment. Students who, within a year or two, will have to make the adjustment to living on a college or university campus, learn through dormitory life at Phillips Academy to respect the rights of others. Equally important, they learn how to set priorities for work and play. The combination of major and minor course hours totalling 18 hours per week means that each student spends at least three hours per day in the classroom, six days a week, with additional hours spent in daily preparation, usually in the dormitory, but also in the library, computer center, art studios, writing center or math center.

To assist students in this living and learning experience, each dormitory is staffed by a house counselor, an adult whose sensitivity to student concerns is balanced by a commitment to maintain an atmosphere in which hard work can be performed effectively. Teaching assistants serve as a second adult presence in the larger dormitories.

Since living closely with other young people of widely differing backgrounds is one of the most rewarding experiences of the Summer Session, requests for friends as roommates are not honored.

The Summer Session does not permit students to visit members of the opposite sex in their rooms. Most dormitories have common rooms where students may socialize in the free time before study hours commence at 8 P.M. The Ryley Room, the campus snack bar and recreation center, is also available at hours listed in the *Student Handbook*.

House counselors take the time to learn about each of their students, look after their welfare, stay abreast of their activities and act as their advisors. They write reports on the overall performance of each student at the end of the Session.

Unlike grades and teachers' reports, house-counselor reports are not part of the student's Summer Session transcript; they are solely for the information of parents.

Day Students

The Summer Session welcomes day students who live within a reasonable commuting distance. Day students are expected to maintain the full Summer Session commitment to class and activity schedules. Occasionally attendance will be required at a lecture, movie or poetry reading in the evening.

4th of July

The regular academic class schedule will be maintained. The holiday will be celebrated with afternoon and evening community events.



Discipline and Individual Responsibility The Summer Session assumes that students come for a serious purpose and that they will thus meet all school appointments and observe study hours. Students are expected to conduct themselves honorably and with decorum in all their affairs and to take responsibility for their own actions, whether or not those actions are explicitly covered by the rules.

Students may not haze or in any way show disrespect for any individual's race, class or gender. Students may not gamble or purchase,

possess or use alcohol, drugs or drug paraphernalia. For health and safety reasons, the Summer Session does not permit smoking by its students on or off campus during the 6-week session. Students are held financially responsible for any damage or abuse of school property. Cheating and academic dishonesty of any kind break the bond of trust between student and faculty and cannot be tolerated.

The *Student Handbook*, sent to admitted students, spells out the fundamental rules of the Summer Session. These rules are few, but essential to the health of the community. Students who show themselves unwilling to conform to the rules or who jeopardize the welfare of others are dismissed. In an effort to emphasize the importance of the "contract" between the Summer Session and its students and their parents, admitted students and their parents must sign a "letter of commitment." This letter is required of all who attend Phillips Academy.

Adherence to the rules of the Summer Session community will facilitate efforts to concentrate on this exceptional academic challenge.

Academic Requirements Majors and Minors

The course load for each student is 18 hours of class work a week. The requirement is fulfilled by taking either a 12-hour major course and one 6-hour minor, or one 18-hour major course. Since, in general, at least 1 1/2 hours of preparation is assumed for each hour of class meeting, most students, even highly able ones, find their hands full with 18 hours of class per week. Exception: by its special nature, OCEANS is more demanding than the basic 18-hour program.

Writing Requirement

Recognizing the importance of writing across the curriculum, all Summer Session courses contain a writing component.

Course Selection

Students should select their courses with care, noting any prerequisites, and they should list alternate choices in order of preference. Serious consideration of course choices will minimize the need for unnecessary and usually impossible course changes. It is important that our applicants understand that, despite our best efforts, it is sometimes necessary for them to accept their second or third choices of courses. Once students arrive here, a course change is made only with teacher approval. On the one hand, the Summer Session reserves the right to withdraw any course that fails to attract a sufficient enrollment; on the other hand, many courses simply fill up very quickly, and often it is not possible to offer multiple sections of the most popular courses. Students whose first language is not English should consult the International Student Information Sheet for additional course-selection guidelines.



Grades Grades are given in all summer courses on the regular Phillips Academy scale of zero through six. Translation of our scale is shown below:

6	High Honors	100–93
5	Low Honors	92–85
4	Good	84–77
3	Satisfactory	76–69
2	Minimally Passing	68-60
1	Failure	below-60
0	Low Failure	below-40

Academic Standards

The standards for evaluating a student's performance in the Summer Session are the same as for those who attend Phillips Academy during the school year. Standards are high, but no dedicated student ought to fear to accept the challenge.

Academic Credit

Students seeking academic credit for summer study should make arrangements in advance with their own schools. Since many courses do not cover the material in standard curricula, they may not fulfill the requirements of the student's home school. Applicants must, therefore, check to see what their schools will accept.

Upon written request, the Summer Session gladly forwards grades and a copy of the teachers' final comments to the student's home school. The Summer Session will also forward transcripts (teachers' reports with grades on them) to colleges upon receipt of a written request accompanied by a \$2 fee for each transcript.

The Writing Center

To support students, all of whom have regular writing assignments in their courses, the Writing Center offers individual conferences to work on specific assignments.

The Mathematics Study Center

To support students who are enrolled in mathematics courses and in courses that depend on mathematical skills, the math center offers individual assistance and group-study sessions.



Arts At Andover

ARTS AT ANDOVER was created at the close of the 1993 Summer Session in order to establish an artistic environment that would benefit the entire Summer Session community. Summer at Andover is a perfect time for adolescents to explore in depth their creative intellect, which is something students may not have time for during their regular academic year.

ARTS AT ANDOVER is new to Phillips Academy's Summer Session in that it adds performing arts to an enriched visual arts curriculum. ARTS AT ANDOVER will open up visual and performing art courses to the entire Summer Session student body while giving the general program breadth in course offerings as well.

The Theater Division of ARTS AT ANDOVER meets in a newly renovated, state-of-the-art theater complex boasting three separate theaters. An intimate studio theater which seats 80 doubles as a performance classroom. Technically, the classroom theater utilizes basic lighting and stock furniture which allow for excellent teaching opportunities of manual lighting and space utilization projects. The Black Box Theater seats up to 150 in completely flexible space. Over 100 lighting circuits are reached from the suspended tension grid and are controlled by a computerized light board. The digital sound system includes DAT sound machines for programmed cueing.

The main stage includes a 50-foot proscenium stage with a modularized courtyard auditorium which seats up to 400 depending on the configurations allowed which adapt the theater into an arena style or 3/4 thrust arrangement. The fully computerized light board controls over 300 circuits with dimmer per channel flexibility.

Recent summer productions include *Macbeth, A Raisin in the Sun,* Waiting For Lefty.

Music Lessons

Private lessons for piano (classical or jazz), strings, brass, flute, woodwind, harp, guitar, percussion and voice are available on a non-credit basis for an additional fee to the experienced or beginning student. Our music faculty is comprised of professional musicians from the Merrimack Valley and the greater Boston area, most of whom teach regularly at Phillips Academy, Longy School of Music, New England Conservatory of Music and Phillips Exeter Academy.

Coached chamber music is available for an additional fee. Small groups meet regularly and give an informal concert at the end of Summer Session. Students are auditioned and matched with other students at their level.

Please note that music and voice lessons are not major or minor courses. Music lessons are extracurricular, individual and private.

Music fees are paid in full at registration (cash, personal checks or traveler's checks are accepted). Some rental instruments are available, but in general it is best to bring your own. There is a fee of \$20 to use practice rooms in the music building if you are NOT taking lessons or chamber music. Our music listening library in Graves Hall is open in the evenings for quiet study and listening; all students and faculty are welcome.

Off-Campus Excuses

With written permission from their parents and approval by the Summer Session, students may (except on the first weekend) leave campus on Wednesday or Saturday afternoons or on Sunday, or they may make a weekend overnight visit (Saturday night) to their own home or to a friend's. An invitation from an adult is required if the student is to be overnight at a friend's. Overnight excuses expire at 8:00 P.M. Sunday; day excuses at 8:00 P.M. on the day of the excuse. No off-campus excuse, whether with or without parents, may interfere with the student's responsibility to attend every class, Monday through Saturday. Unauthorized absence from campus results in dismissal. Summer Session students are prohibited from staying overnight at colleges—if they do so, they are dismissed.

The Work Program and Commons Duty

The academy continues to maintain its tradition of service and individual self-reliance, and it firmly believes in the value and dignity of productive labor in concert with one's peers. Consequently, students are expected to participate in a work program designed to maintain a healthy standard of living in the dormitories. In addition to work duty, students must also take a brief turn at scullery duty in the kitchen and dining hall.

Dress

Boys and girls dress informally but with a sense of propriety; although coats, ties and dresses continue to appear, there is no dress code.

Study Hours

There are short periods in the daily schedule when students can study, but the bulk of their homework is customarily accomplished in the evenings after 8:00 P.M. Studying in their dormitories, the library, the computer center, the language laboratory, the art studios, the writing center or the math center, students are required to keep these evening hours **quiet** and in every way conducive to study.



Morning Break

This school break (10:00–10:30 A.M., Mon., Tues., Thurs., Fri., Sat.), traditionally known as "milk and cookies," provides students and faculty alike an opportunity to talk informally over fruit, milk and other treats. Often it is also the occasion for school announcements or entertainment.

The Daily Schedule

7:15 Breakfast

8:00 –10:00 Major course classes

10:00 –10:30 Morning break*

10:30 –11:45 Minor course classes*

12:15 - 1:30 Minor course classes*

11:30 - 1:30 Lunch

1:40 – 2:50 College workshops**

3:00 - 5:00 Afternoon activities**

5:00 – 6:30 Dinner

8:00 Initial dormitory sign-in and evening study begins

10:00 Students in their dorms. Final dormitory sign-in

11:00 Students in their own rooms

*No minor course classes or morning break on Wednesday

**Not applicable on Wednesday and Saturday

All students taking a 12-hour major at 8 A.M. are scheduled to take a minor course in either the 10:30–11:45 or 12:15–1:30 period. The dean of admission determines each student's schedule based on classroom availability and dining hall seating capacity.

College Counseling

A special feature of the Summer Session is a series of workshops on both general and specific topics relating to college admissions. Some of the 1993 workshops covered: "How to Use the College Counseling Program's Resources: Afternoon Workshops, Trips to College Campuses, College Day and Counseling Sessions," "How Competitive Colleges Select Students," "Using Resources including Computer Programs, Guidebooks and Catalogues," "What is a Liberal Arts Education?" and "Preparing Yourself as a College Applicant." In mid-July the College Day brings close to 100 college representatives from around the nation to campus to meet with students. A full-time college counselor sets up these events and is available for individual student conferences.

Trips and Tours

Special trips and tours are offered to Red Sox baseball games, to the beach on Sundays, to nearby college campuses, to a whale watching expedition off the coast, to Tanglewood concerts, etc.

Beach trips are partially supported by the Summer Session, but the full expense of the other special trips is passed on to the students at prices that cover all costs. Those availing themselves of several such opportunities may well need more than the usual \$400 to cover personal expenditures. (Please do not bring credit cards or large sums of money. See p. 25.)

Afternoon Activities

The Summer Session has an activities program that is instructionally and recreationally based. Such activities as basketball, tennis, swimming, soccer, styxball, softball, volleyball, aerobics, dance, physical fitness and squash are offered. All activities are coed. The numerous academy playing fields and tennis courts, the gymnasium, the new fully equipped physical fitness center and the six-lane swimming pool with separate diving pool provide excellent facilities for both scheduled and informal sports.

Of additional interest are a number of activities not always available in secondary schools. One of the most popular is Outdoor Adventure. (See application in back of Catalogue for complete list of Afternoon Activities.)

Outdoor Adventure

Outdoor Adventure is an Afternoon Activity directed and conducted by outdoor specialists who work with similar programs throughout the year. In general, Outdoor Adventure is a series of physical and psychological challenges—compass-bearing hiking, rappelling and obstacle course maneuvers—in short, physical activities requiring a balanced combination of individual initiative and group cooperation. Popularity requires that Outdoor Adventure be given twice, in three-week segments, to allow the largest possible enrollment.





(MS)²: Math and Science for Minority Students

In response to their lack of representation in mathematics and science professions, the (MS)² Program, Math and Science for Minority Students, offers African-American, Hispanic/Latino-, and Native-American students three consecutive tuition-free summers of intensive study at Phillips Academy. Ninth grade African-American and Hispanic/Latinostudents from specific communities: Baltimore, Boston, Chicago, Cleveland, Dayton, Fort Worth, Louisville, Memphis, New York and Washington, D.C., and Native-American students are selected on the basis of their superior ability and strong interest in mathematics and science, as well as financial need. In order to achieve the goal of the (MS)2 Program, which is to prepare its students to compete successfully for admission to selective colleges and for careers in science, engineering and medicine, (MS)² students follow a rigorous, three-summer sequence of courses in math and science, reinforced by an English composition component. (MS)² students are able to participate fully in Summer Session dormitory life and the Afternoon Activities program, though their course load is different from and heavier than that of other Summer Session students. For applications and information contact Mr. Walter Sherrill, director; or Mrs. Sharon Hill, administrative assistant, (508) 749-4402 before 15 December 1993.

W. E. B. Du Bois Tuesday Colloquia Weekly colloquia provide the Summer Session community with the opportunity to hear and discuss with scholars, artists and activists ideas on a range of contemporary topics. These community-wide Colloquia are held every Tuesday at 6:45 P.M.

Medical Care

The Isham Infirmary of Phillips Academy is licensed as a hospital by the Commonwealth of Massachusetts. Registered nurses are on duty at all times, and in addition to usual office hours a physician is always on call. All minor illnesses and injuries are treated at Isham by the infirmary staff. Parents are responsible for the cost of medical consultations, prescription drugs, dental care, x-rays, special laboratory tests, outpatient surgery and orthopedic appliances. Daily charges are made when a student is admitted to Isham. Most family medical insurance plans will meet at least some out-patient and in-patient charges. An excess insurance policy, designed to cover ineligible charges and amounts credited to deductibles under primary insurance, is included in tuition cost. Students residing in the United States who are not covered by an adequate primary health plan and all international students must purchase our insurance (plan B). Phillips Academy cannot accept out-of-country insurance. Full details are sent after acceptance. To be registered for the session, students must provide proof of insurance. Students at Summer Session are not required to have routine physical examinations done if they are in good health. If significant health problems or hazards such as allergies exist, they MUST be reported and accompanied by current evaluation and recommendations by the appropriate physicians.

Religious Services

Protestant churches of several denominations, a Roman Catholic church and a Jewish Reform temple in the town of Andover welcome students of the Summer Session for worship. Schedules of services and transportation options will be available.



Admission

The Admission Committee looks for evidence that the applicant has the intellectual ability, the industry and the character to make the most of the Summer Session opportunity. The Committee expects the applicant to have a strong school record and a serious desire to spend the summer in challenging, disciplined study. For this reason, we do not permit weddings or other family functions, or other academic or athletic pursuits to interfere with classes, which are held six days a week. Students must also arrive on campus for the scheduled beginning of Summer Session and remain through the closing. Early departure will mean forfeiture of the Certificate of Attendance and course credit.

The Summer Session accepts academically qualified boys and girls who have completed the eighth, ninth, tenth or eleventh grade. Students who have graduated from high school or who are 19 years old or older are not eligible for admission. Those who have attended the Phillips Academy Summer Session once are not eligible to attend a second time. Our policy is to open the experience to as many boys and girls as we possibly can, and we think it is sound advice to students to seek different experiences every summer.

Accuracy, clarity and honesty are as essential to the application as they are to success in the classroom. Represent yourself as you are so that, if admitted, your teachers will be able to serve you well.

When to Apply

Students should apply immediately after receiving the 1994 catalogue. Since we have rolling admission, there is no deadline in the usual sense of the term. Decisions are made soon after applications are complete. Often courses fill quickly; therefore, it is advantageous to apply as early as possible.

All five application forms and the student's autobiographical statement are very important in the admission process. The question of admittance cannot be determined until all application material has been received; and since the capacity of the Summer Session is limited, early application is necessary to avoid disappointment.

Application Forms

Five tear-out application forms are provided in the back of the catalogue: Form 1 (the student application); Form 2 (the school report for school counselor); Forms 3 and 4 (two teacher recommendations); Form 5 (afternoon activities preferences). Each of these is to be filled out completely according to the instructions on page 78. In addition, the student must provide an autobiographical statement (see page 78) and a transcript from his or her school (must include current year grades). All materials should be mailed together in one package. Please be certain that the non-refundable \$30 application fee is enclosed. (International students pay \$45.)

Application Envelope

All application materials—the recommendations, the school report, the transcript, the autobiographical statement and Afternoon Activities selections, together with the application form and fee—should be placed in a *single envelope* and mailed to the Phillips Academy Summer Session. (We have enclosed an appropriate envelope for your convenience.) Mailing the application material separately rather than in a single package results in serious delay for that application and may even jeopardize the applicant's chances for acceptance.

International Students

Since school administrations and evaluative methods vary so greatly throughout the world, we suggest the following to simplify the application process. Please include a translation of your school's grading system with your transcript. If your school does not have guidance counselors, the headmaster or principal should fill out Form 2. Compose your autobiographical essay, without help, in English. If you have recently taken the TOEFL, please forward your scores with your application. Please request an International Student Information Sheet if you have not already received one.

Tuition, Board and Room

The \$3000 charge for boarding students includes tuition, board, room and supplemental medical insurance (see page 21). The day-student charge of \$2000 covers tuition, supplemental medical insurance and all meals. The non-refundable application fee must accompany the application. Within two weeks of acceptance, the student must pay a non-refundable \$300 deposit, credited toward the tuition charge. All applicable lab fees should be paid with the tuition. *To ensure the student's admission the balance is due on or before May 25*. All checks should be made payable to the Trustees of Phillips Academy and sent to the following address: The Phillips Academy Summer Session, Phillips Academy, Andover, MA 01810-4166.

In accordance with Summer Session policy, a student cannot be registered until her or his bill is paid, and no refund is made of the deposit or of the tuition and board and room charges to the student who withdraws or is dismissed. *International students, please refer to separate International Student Information Sheet for specific payment instructions.*

Scholarships

The Summer Session actively seeks qualified and promising students from a wide range of backgrounds. For many students a six-week summer academic experience at Phillips Academy may provide the skills and self-discipline essential to success in college, career and later life.

Since we do not want any qualified student to be denied the opportunity of attending the Summer Session because of his or her inability to pay, partial and full scholarships are awarded according to financial need, which is determined by computation based upon the parents' income and not upon academic performance. Given the fact that our funds are limited, in fairness to everyone we ask students to apply for scholarship aid only if they cannot attend the Summer Session without it. Our limited funds also preclude offering scholarship aid to international students. Early application is absolutely necessary for those requiring financial aid. All application forms, including the Financial Aid Form and a copy of the most recent IRS 1040 form or other income-tax form used, must be completely and accurately filled out and received by us no later than March 1.

A Financial Aid Form is not sent automatically. Please write or call to receive one.

Spending Money

The Treasurer's Office does not handle student banking. A Cirrus Network money machine has been installed on campus to facilitate students' handling of their spending money. A checking account opened in a Cirrus Network bank (located throughout the U.S.A. and Canada) before coming to Andover will allow parents to deposit funds locally which can be drawn on by students with their money card. International students: information will be provided upon acceptance. Large amounts of money are ill-advised given the ages and number of students in the Summer Session. BayBank will offer banking advice and services to all admitted students through the mail and at registration.

Students who wish to live as simply as possible should not find expenditures for textbooks and extras in excess of \$400. (For additional expenses, see Trips and Tours, page 18.)



Major Courses

In sequential subjects such as mathematics and foreign languages, prerequisites for admission are listed in the course description to enable students to place themselves as accurately as possible at the appropriate level. To the right of the title of each course appears the grade level(s) which the student should be entering in order to enroll in the course.

ARTS AT ANDOVER



Painting 12 Hours

All Grades

This class provides an intense exposure to the fundamentals and theory of oil and acrylic painting. The students explore ideas of composition, light, shadow and subject matter. Methods of color planning, brush techniques and proper use of materials are emphasized.

The instructor provides on-going individual critique of each student's work. Assignments include still-life, portraiture, abstract and figure painting. All resources of Phillips Academy's Addison Gallery of American Art, Audio-Visual Center and the Oliver Wendell Holmes Library are available. (Fee: \$100 to be paid by tuition deadline.)

Drawing

All Grades

12 Hours

Are you thinking of becoming an artist? Then learn to think like an artist. This course is designed for the very serious art student who wants to develop a portfolio. This is an intense foundation drawing course that emphasizes the artistic process and develops sound visual perception and drawing skills. This progressive curriculum enhances proficiency in composition, line quality, use of shading to describe form and use of color. All drawing materials are used including pencil, charcoal, ink, pastel and watercolor. All resources of Phillips Academy's Addison Gallery of American Art, Audio-Visual Center and Oliver Wendell Holmes Library are available and there will be visits to Boston's museums and galleries. (Fee: \$100 to be paid by tuition deadline.)

Sculpture

All Grades

12 Hours

Explore the additive and subtractive methods of sculpture using materials that include ceramic clay, papier maché, wire and soft wood. Large and small sculptural projects with various figurative and nonfigurative approaches will be constructed, so that materials and subject matter are visually, technically and creatively investigated. Sculpture vocabulary, aesthetics, technique and the study of great sculptors of the past are included in the curriculum. Students should have some experience and great interest in the area of art. (Fee: \$100 to be paid by tuition deadline.)

Photography 12 Hours

All Grades

This black and white photography course is a demanding excursion into creating, thinking about and looking at photographs. Designed for beginning as well as intermediate photographers, the course requires the student to initiate and execute a session-long project based on the concepts presented in class. Cameracraft, film developing and printing are



mastered; the student can expect to spend extended periods in the state-of-the-art darkroom refining printing skills and producing a presentation portfolio. Extensive use is made of the fine art photography collection at the Addison Gallery of American Art. A 35mm camera with manual control of all functions is required. (Fee: \$150 to be paid by tuition deadline.)

Introduction to Computer Graphics and Animation 12 Hours

All Grades

From *Scr*

From Scrubbing Bubbles and Roger Rabbit to Jurassic Park, the computer has become an important tool to the artist/animator. This course is designed to introduce students to computer-generated images on a Macintosh computer. Students become proficient with using a computer mouse. They are able to draw, paint and even spray paint on their screens. The fundamentals of animation are taught through the use of

examples and an in-depth look at the software. Students take an idea from story boards to a fully animated sequence as a final project. (Fee: \$100 to be paid by tuition deadline.)

Play Production 12 Hours

All Grades

Using class size and demographics as a guide, a major play is chosen to be performed by the students at the end of the Summer Session. Course work includes written character analysis and research. As part of the practical process of rehearsing a play, students receive additional training, as required by the script, in speech, movement, stage fighting, dialects and various rehearsal techniques. Students keep a journal chronicling their plateaus, discoveries and progress. Previous productions include *Macbeth* and *A Raisin in the Sun*.

ENGLISH

Expository Writing 12 Hours

10-12

Expository Writing is an intensive course in the elements of composition. Students learn how to develop and focus their writing, and they are introduced to the rhetorical patterns and grammatical tools necessary to write clearly. Students learn the elements of the paragraph, the importance of effective organization and the need for careful revision. By summer's

end, each student will be capable of writing a cogent,

convincing multi-paragraph essay.

Weekly vocabulary lessons, a review of some points of grammar, and an introduction to word processing in the academy's computer center are important parts of the course. Students also read non-fiction essays as examples of good writing.

Speech and Debate

All Grades

12 Hours

In a survey, 3,000 Americans were asked what in the world they dreaded the most. Public speaking came in first—ahead of death!

This course concentrates on public speaking as a whole rather than on competitive debate in particular. Students are taught to improve both the delivery and the content of their public speaking, whether they are simply reading aloud, speaking "off-the-cuff," writing for the spoken word, delivering rhetorical and persuasive speeches or entering into formal debate.

Students learn not only by formal instruction in class, but also by close analysis of speakers as diverse as Woody Allen, Garrison Keillor, Abraham Lincoln, John F. Kennedy and Martin Luther King. Texts, audio tapes and video are all examined. Most importantly, however, students write, revise and speak extensively for themselves in a demanding yet encouraging classroom atmosphere.

By the end of the course, students learn not only that speaking in public is infinitely preferable to death, but more significantly that they have developed a skill which will serve them invaluably for the rest of their lives.

This course assumes no prior knowledge of or familiarity with public speaking or debate.

Critical Reading and Writing Across the Curriculum

11-12

12 Hours

This intensive writing course is designed for students who have mastered basic writing skills and are now ready to confront college-level material. Working with a variety of sources, students practice skills necessary for writing in most disciplines. By writing summaries, they learn to distill the essence of an author's argument; they then evaluate the validity of that argument in written critiques, which sharpen their analytical skills. Students finally learn to develop their own arguments, incorporating several sources into their essays and yet going beyond any one author's assertions. Having mastered these skills, students then learn to adapt them to the demands of different disciplines. This provides them with a broad range of strategies with which to approach college writing. Students should come prepared to revise their writing extensively and to participate in frequent peer-editing workshops.

Creative Writing

11-12

12 Hours

Open to those who wish to write short stories and poetry, the course emphasizes fundamental techniques in good writing ranging from figurative language to plot structure. The students explore the works of published writers in great detail, concentrating in particular on the problems and solutions which these works illustrate. A reading series involving faculty and student poets and fiction writers provides students the opportunity to interact with other writers.

Students are required to write daily, both in class

and during study hours. Writing assignments are designed to introduce the students to new ideas in writing and to break down barriers young writers frequently have. Much of every class is devoted to discussion of student work sheets and group readings. Prerequisites are a mastery of basic writing skills, some experience with poetry or fiction and a serious attitude about writing as a discipline and an art.

Writing the Personal Essay 10–12 12 Hours

One of the marks of a great writer is the ability to say "I am." This intensive writing course encourages students to explore their own power to communicate personal experiences, perceptions and philosophies through their compositions. Through daily journal writing and discussion, students develop their "writer's voice," a vital tool for conveying their words. We tackle the challenges of writing autobiographical sketches, personal observations, critiques and argumentative essays. Critical readings of personal pieces by authors such as Eudora Welty, Russell Baker, Richard Wright and Virginia Woolf may serve as models of how skillful writers voice their experiences.

This course also focuses on the mechanics of cogent writing. Skills of organization, grammar, diction, pacing and transition are taught and practiced through daily writing assignments. Students learn the benefits of using computers in composing, editing and storing pieces. In addition to providing a valuable mode of self-discovery, this course assists the student in meeting the demands of writing college essays.



Journalism: The Media Mirror All Grades 12 Hours

If journalism creates the mirror in which society views itself, then there are serious flaws in the glass distorting the image. At least that is what critics contend. Journalists respond that such criticism is nothing more than a variation of the ancient practice of punishing the messenger if you did not like the message.

This course is a basic introduction to the principles and practices of modern American journalism, providing students with an understanding of the role and function of a free press in a democracy. Emphasis is placed on acquiring the basic skills reporters and editors use to gather and disseminate information. Considerable time is devoted to writing copy which is accurate, clear, fair and interesting to read.

To great extent, what we know about our fast-paced, increasingly complex world is learned from the news media. This course helps students become more informed consumers of the media and the message.

Careful Reading and Persuasive Writing 11–12 12 Hours

This course is designed for those who have completed a course similar to Expository Writing, who handle language with ease and who want to develop greater skill in both interpretation and composition. Drawn from a wide-range of genres and organized by theme rather than chronology, the readings include European as well as British and American works. Emphasis is placed upon careful, critical reading of texts and the planning and execution of precise, persuasive writing based upon that reading.

In the belief that strong opinions lead to persuasive writing, much of the classroom time is spent in spirited discussion. Frequent writing about the text, in addition to essays written both in class and out, help refine the student's argumentation skills.

Readings may include such authors as Milton, Keats, Shakespeare, Faulkner, Toni Morrison, Hardy, Austen, Joyce, Ibsen and a Greek tragedy.

English as a Second Language All Grades 12 Hours

The major course sections of ESL are divided into levels according to the results of a pre-TOEFL examination administered on the opening day of classes. Levels range from one which represents a very high degree of proficiency, to one more suited to intermediate students, students who have scored a minimum of 450 on the TOEFL. A "beginners" level is not offered. While all classes stress the development of written and oral language competencies, close attention is paid to individual needs. Students are exposed to a wide variety of English styles and materials and are expected to understand and to respond to the course materials and to create fresh texts of their own. Classes are small (typically 12 students), highly interactive, and it is not unusual for eight or more cultures to find representation in any given group. All ESL students use the language laboratory.

ESL minor courses differ significantly from major courses in that the minors concentrate on a particular area of study and foster a greater degree of independent study. Minor course offerings vary from year to year. (See minor course listings.) NOTE: Minor course enrollments are also based on pre-TOEFL scores. Students should list four ESL minor courses in order of preference. Requests to attend a non-ESL minor will be considered on a case-by-case basis. (Students must be enrolled in an ESL major in order to enroll in an ESL minor.)

In addition to the pre-TOEFL taken the first day of class for placement purposes, all ESL students are required to take the Institutional TOEFL at the end of the Session (TOEFL fee paid at exam).

GEOGRAPHY

An Introduction to Geography All Grades 12 Hours

Geography is an often misunderstood field. While the identification of places can be entertaining and certainly is fundamental geographic knowledge, a true understanding of geography is much more comprehensive and just as exciting.

Geography offers four primary sub-fields. Human Geography considers where people are located and how and why they behave in particular ways in those specific locations. That is, geographers contend that the characteristics of a particular place contribute to the nature of human activity in that site. In that context this course investigates why and how population change is not uniform, but varies by region and country.

Physical Geography examines the nature of the physical landscape. It includes the scientific study of various processes of the environment. Thus, this course explains climatological phenomena such as rain, hail, snow, tornadoes and thunderstorms.

Regional Geography uses the concepts of human geography and physical geography to define why a particular area of the world is distinctive as a region. This course investigates aspects of Southeast Asia and the Middle East to demonstrate this point.

Technical Geography involves the creation of maps to provide geographic information. Students are introduced to basic cartographic techniques and features. Currently this sub-field is highly technological. Facets of Geographical Information Systems (GIS) will be illustrated.

HISTORY, ECONOMICS AND POLITICS

Colonial History and the American Revolution

All Grades

12 Hours

Study early American history at its most interesting, compelling level; namely, the rich, detailed, colonial setting of the Revolutionary War and the background and achievements of that great conflict, including the social and ideological aspects as well as the political and economic ones.

Reading, written work and classroom discussion are all emphasized in the use of both primary and secondary sources. Field trips to historical sites in the "Cradle of Liberty" include such places as Plimoth Plantation (a restored replica of the original colony), Danvers (the preserved site of the Salem witch hysteria), Salem (the House of Seven Gables and the rich collections on colonial trade in the Essex Institute) and Concord (the Old North Bridge, the site of the Battle of Lexington and Concord, as well as the homes of Thoreau and Alcott). There are also trips to Boston to walk the Freedom Trail to see the site of the Boston Massacre, Paul Revere's house and the whole city from the top of the John Hancock Building.

The Civil War and Reconstruction

All Grades

12 Hours

This course examines the personalities, events and issues that contributed to the Civil War and Reconstruction, with an emphasis on the political, economic, social and cultural history of this momentous time. The course addresses slavery, race relations, sectionalism, Lincoln as president, the conduct of the war and the eventual success of the North, reconciliation and its consequences and the imprint of the war on America's future. We make use of primary and secondary sources, literature, and documentary and feature films.

U.S. History Since 1877 All Grades 12 Hours

A survey in American history since the end of reconstruction, this course considers the rise of the United States as an economic and geopolitical power during the twentieth century. Topics considered include expansionism, the Depression, American participation in World Wars I and II and the Korean and Vietnam conflicts and the evolution of the Presidency. American social developments such as immigration, the rise and fall of the labor movement, the women's movement and the Civil Rights movement will receive special consideration.

Law, Politics and Society All Grades 12 Hours

Law is the institution that protects the citizens from the arbitrary power of government, as well as from the greed and violence of individuals. It is an institution based on reason that stands between the power of political institutions and the customs of society. Yet, in holding this position, a system of law is always under stress, and this tension is evident in the furor surrounding public issues such as the struggle for racial equality, capital punishment, abortion and due process.

What are the premises of the American constitutional system? How does the separation of powers among different branches of government distribute the pressures of popular democracy? From an examination of the philosophical sources of the Constitution, the course moves to an analysis of these questions and their importance in understanding American society.

Readings include constitutional theory, important court decisions, analyses of the law enforcement process, historical interpretations of the American legal tradition and proposals for change.

American Foreign Policy Since 1898

All Grades

12 Hours

This course will consider the changing geopolitical role of the United States since the Spanish American War. Among the topics considered will be American expansionism, participation in World War I, isolationism, World War II, the Cold War, the conflicts in Korea and Vietnam, the Cuban Missile Crisis, the Iran Hostage Crisis, the Gulf War and America's role in the "New World Order." Special attention will be paid to the role of decision-making, both Congressional and Presidential, in American foreign policy. Students are encouraged to assume roles and execute decisions in an effort to better understand the potential and limits of American power during the twentieth century.





An Introduction to Economics 11–12
12 Hours

This general introduction to economics provides some sense of what makes a modern economy tick. It relates the concepts of macro-economics to real-world and contemporary problems. Looking at basic economic concepts, conditions for the market system, the basic macro concept, money, spending and

equilibrium, inflation, unemployment and economic stabilization, international trade and the world economy and the "economics" of current economic problems, the student is brought face to face with the ultimate economic reality—scarcity. It is this realization that makes economics essential for those seeking a more sane tomorrow.

As an economics student, one is expected to have opinions and to express them. Fundamental to the course is a set of expository writing assignments designed to develop the student's capacity to organize and clarify ideas. But the subject is important for more than strictly academic reasons. It is about the real problems of real people in a real world.

International Relations 11–12 12 Hours

This course is designed to stimulate students' interest in international relations and the complexities of foreign policy. As a result of their experience in the course, students become well-informed respondents to the major international issues of the day and better observers of the world political scene. Strong emphasis is placed on theoretical concepts of foreign policy, the historical background of this field as well as the realities of international politics in today's volatile world scene.

In addition to regularly assigned readings in the field, students are involved in research projects to ensure their introduction to sources providing a wide range of viewpoints. Much attention is given to the development of critical thinking and a large portion of the course is devoted to activities that promote student involvement. Students engage in numerous seminars, they present cases as well as act as court members in mock World Court sessions and they participate in a major role-playing simulation that involves their acting as delegates to a convention which involves speech-making, debating issues, political compromising and decision-making.

MATHEMATICS

All mathematics students take a placement test to confirm their course assignments.

Intermediate Algebra

All Grades

12 Hours

This course is for students who want a review of first-year algebra and complete coverage of second-year algebra. Topics include rational, irrational and complex numbers, factoring, fractions, exponents, radicals, inequalities, solutions of linear, quadratic and radical equations, graphing, logarithms, sequences and series, trigonometry and matrices. (Compare Intermediate Algebra Minor, p. 53.) Because of the rigorous and comprehensive nature of this course, students who receive a grade of 3 or above should be prepared to enter precalculus in the fall. It would be helpful to have taken geometry prior to taking this course. Not for students who have completed second-year algebra.

Precalculus

11-12

12 Hours

This course is a study of the standard topics of precalculus, including functions (linear, quadratic, polynomial and exponential), logarithms, analytic geometry, trigonometry, polar coordinates and complex numbers. Emphasis is placed on the derivation, applications and extension of these topics to create a strong foundation for calculus. Both computers and graphing calculators are used to complement classroom work, assignments and projects. Although this course exposes a student to a year's worth of material at a rapid pace, it should not necessarily be considered as a good substitute for a year-long course. **Prerequisite: Algebra II.**

Calculus

11-12

12 Hours

This course is for students who have successfully completed two years of algebra and a yearlong precalculus course, including trigonometry. It is an intensive and an accelerated mathematics course for strong math students. Topics include limits and continuity, the first and second derivative tests and their applications, definite integrals and techniques and applications of integration and the Fundamental Theorem of Calculus.

Geometry

All Grades

12 Hours

A course for students who have had a strong ninth-grade algebra course, but no geometry. It is a thorough study of traditional Euclidean geometry and synthetic geometry. The course stresses the development of logical, structured proofs and deductive reasoning. The second half of the course focuses more on numerical solutions to problems. Topics include basic postulates of geometry, lines and angles, congruent triangles, parallel lines in the plane and in space, quadrilaterals and polygons, similar triangles and other figures, the Pythagorean theorem and a study of the properties of circles. Prerequisite: Successful completion of a yearlong course in elementary algebra.



COMPUTER

Computer Programming 12 Hours

11-12

This introduction to computer science through Pascal programming begins with a quick overview of the basic control structures and data types in Pascal. This course reviews the uses of many common data structures such as arrays and linked lists. Also many basic algorithms are studied to see the variety of ways in which programmers solve problems.

Once students are familiar with the Pascal language and have seen a number of short programs, their attention turns to larger programming projects. Students will have the opportunity to choose and develop projects of particular interest to them. The projects can focus on a number of different areas of computer science; for example, programs which do graphics animation, solve difficult math problems, play an "adventure" game or use artificial intelligence to make the computer "think."

PHILOSOPHY AND PSYCHOLOGY

Law and Morality

11-12

12 Hours

What is justice? What is morality? How are we to decide? The history of our world is replete with wars, conflicts and unrest. Arguably, much of this turmoil is a result of there being no common understanding or agreement on what justice and morality are and in which context they belong. This issue has and continues to lead philosophers, in particular, to wonder about the nature of morality and its role in our society. It is therefore in the inquisitive spirit of Socrates, Plato and others that this course shall proceed toward an understanding of some of philosophy's deepest questions.

The Big Questions: Contemporary Philosophies of Human Life

11-12

12 Hours

In this scientific and technological age most of us prefer to deal with clear-cut answers and with practical solutions. But despite our advanced knowledge and expertise, the really "Big Questions" will not go away and are all the more intriguing for their resistance to easy answers: What is wisdom? What is truth? What is thinking? What is life? What is reality? In order to address the significance of these perennial questions, we first examine how a few exemplary twentieth century philosophers have sought to explain the nature and practice of philosophy itself, both its source in wonder and its goal in leading us to a satisfying life. We investigate philosophical and scientific methodology and explore the value of deductive and inductive reasoning as means of discovering truth. We then apply these methodologies to both understanding and criticizing the thought of some major figures who have had a powerful

11-12

influence in shaping contemporary modes of thinking and living: Darwin, Marx, Freud and Sartre. In thus applying the "Big Questions" to modern world views, we have to ask more specific questions such as: What is the proper role of science? To what extent are we shaped by economic and historical conditions? Are human beings solely or almost entirely determined by unconscious forces? Is there a "human nature," or is atheistic humanism right when it claims that "existence precedes essence"?

Finally, we consider the claims of religion and confront the question as to whether there is anything beyond our human life. What is the nature of religious truth? Does it rest on reason or on empirical evidence? What is the role of faith and common experience in formulating a world view? While no background in philosophy is required, a willingness to reflect on the most profound ideas of major thinkers and to do sustained critical analysis of their

thought will prove as necessary as a genuine interest in the subject matter. The course benefits those students who are tired of reading and hearing about these major thinkers and want to hear them speak for themselves. It also helps students interested in expanding their vocabulary and reading comprehension, improving verbal and written expression and developing clarity and cogency of logical thinking.

Belief and Practice: Introduction to World Religions

12 Hours

What does it mean to be religious in today's world? How does one confront basic questions about the nature of the world and humans' place in it? Students investigate the beliefs and practices of a number of the world's religious traditions. Attention is paid to



the way these traditions are practiced today and the way religious belief shapes both the everyday lives of individual people and global political processes. This exploration will raise questions such as:

- are there common threads that link different religions?
- how do religious beliefs affect people's daily lives?
- how have religions that have come into contact—or conflict— interacted with or influenced one another?
- can people from varied religious traditions understand each other?

After creating a working definition of religion, the class will develop a general understanding of different concepts that are central to religious belief and practice, including the idea of a divine being or beings, sacred writings, liturgy, prayer, laws, religious leaders and religious government. We then look more closely at the sacred texts and practices of specific world religions, including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, Islam and several Native-American traditions. In addition to reading and discussion, the course incorporates films, guest speakers and visits to nearby houses of worship and religious communities.

Social Psychology 12 Hours

All Grades

This course is an inspiring journey into the depths of the social self. Its focus is threefold: first, it catalyzes powers of critical self-reflection through assignments which concentrate on personal description and depiction. The course asks how you define who you are in this society and evaluates this question through a socio-psychological lens. Second, it familiarizes students with the salient social structures/issues that influence their being by evaluating issues endemic to our society. Racism, homophobia, conformity, sexism, mass communication and environmental issues

serve as topics of inquiry into society and self. Third, the course provides the psychological lexicon and categories to undergird your insight into and analysis of the contemporary American scene by interpreting and applying the relevant psychological categories. Theories of Skinner, Freud, Festinger, Maslow and Aristotle will aid in this elucidation.

As a didactic tool, this course relies heavily on the dialogical method. There are short presentations by the instructors at each meeting, but the thrust of our encounter is thoroughly grounded in our discussion of the topic for the day. We also view videotapes and do minor experiments. Ideally, this course is a transformative experience both personally and socially.

Performance Enhancement All Grades 12 Hours

Performance Enhancement training is designed to equip individuals with the skills necessary for the pursuit of excellence in all fields. Offering a highly experiential and theoretical approach to the concepts of excellence, this course uses a dynamic blend of personal awareness, effective goal-setting, relaxation control, concentration and imagery in both theory and practical application. There are few precedents for this instruction in secondary schools. Here, students receive training specifically designed to help them meet academic standards, athletic challenges and personal achievement. Using lecture, experience and readings to teach and demonstrate principles of self-control, the fundamentals are driven home at every opportunity.

SCIENCE

OCEANS: Oceanography/Marine 11–12 Biology Under Sail

The only unexplored frontier on our planet is the sea. This course investigates the ocean frontier from the decks of the 55' schooner *Sarah Abbot*, as well as from the classrooms and laboratories of Phillips Academy.

In OCEANS, students spend 10 days cruising the sounds and bays on the south side of Cape Cod aboard the research schooner. With stops in ports such as Woods Hole, Martha's Vineyard, Nantucket and the Elizabeth Islands, the schooner's sailing track takes the students and scientists in search of a description of the physical characteristics of this marine environment. Study of the hump-back whales on Stellwagen Bank is a high-point of the schooner's research.

On-campus study focuses on ecology, natural history and the evolutionary relationship between species—from jellyfish to sharks to whales. Special attention is paid to specific ecological problems of Nantucket Sound. Field trips to rocky shores, beaches, salt marshes and the New England Aquarium supplement the schooner cruise and inclass work. Topics such as pollution, endangered species and future food resources for man are important elements of this course.

Each OCEANS participant takes a companion minor course in expository writing (rooted in OCEANS' experiences) and completes a scientifically significant research project.

Note: Safe, happy and productive oceanographic research depends on a high degree of cooperation, sensitivity, good humor and academic commitment—especially on board ship. Students applying for OCEANS should possess such qualities as well as a capacity to make the best of an educational experience governed by sea, wind, close-living quarters and the needs of a sailing vessel. (Lab fee: \$650 to be paid by tuition deadline.)





Conceptual Physics

All Grades

12 Hours

Conceptual Physics covers a variety of topics, including mechanics, properties of matter, heat, sound, electricity, magnetism, light, atomic physics, nuclear physics and special relativity. All subjects are approached with an emphasis on conceptual understanding. Although students are taught how to solve specific mathematical problems drawn from each of these subjects, they are also taught how to explain the various phenomena in direct, concrete, non-mathematical terms. Students who are not planning any further studies in physics will receive a good introduction to the many ways in which physics can help us understand the physical world. Students who are planning further work in physics will find that their experience with conceptual thinking will prove useful to them in their future studies. The course presupposes only a minimal background in basic algebra.

Foundations of Astronomy

11-12

18 Hours

You may have heard of black holes, the Big Bang and the rings of Saturn. In foundations of astronomy students explore these and other topics in detail. This course shows you your place in nature and the universe. You see the sun and solar system form, life develop and the sun die.

We seek to understand the dynamics behind the physical processes in the solar system, stars, forming and evolving galaxies and the origin and ultimate fate of the universe. Students start by learning the night sky in the portable Starlab Planetarium. A solid knowledge of the sky enhances all other topics in astronomy. Several field trips, including a major observatory and the Harvard Smithsonian Center for Astrophysics, provide a first-hand look at astronomy on the cutting edge.

On most clear nights students directly observe the night sky, using the telescopes in the Phillips Academy observatory. The objects viewed relate directly to topics discussed in class. Observing plays a major role in the approach to this course.

Human Anatomy and Physiology 10–12 12 Hours

This course is a survey of human anatomy (structure) and physiology (function) with an emphasis on diseases and medical treatments. Through lectures, films, class discussions, readings of medical articles, dissections (optional) and group projects and presentations, each student develops both familiarity and fascination with the human body and its systems (e.g., respiratory, circulatory, reproductive, muscular, immune and digestive). Students write essays on a variety of topics; they also research and write one major paper. This course gives all students, whether they are interested in a career in medicine or not, a solid understanding of the human body.

Prerequisite: a year of high school biology. (Lab fee: \$20 to be paid at first class.)

Intensive Beginning Chemistry 10–12 18 Hours

Chemistry is the search for regularities in nature and the discovery of the relationships that exist between the structure and properties of matter. With two years of high school mathematics as a prerequisite, this course is designed for students with high motivation and ability. As an introduction to the field of chemistry, the focus is on learning the fundamental principles and concepts concerning atoms, molecules and compounds and applying them to understand both chemical and nuclear reactions. Field trips and laboratory work supplement the lectures. Students will need an electronic calculator that has exponential, square root and logarithmic functions. (Lab fee: \$20 to be paid at first class.)

Science in the Real World 11–12 12 Hours

We often do not make a connection between material studied in science classes and issues we are presented with in the "real world." In this course we make that connection by studying the basic science of some

current issues and by considering the social controversies surrounding those issues. For example, in the field of physics, the study of radioactivity and nuclear energy would introduce the consideration of nuclear power.

This course enables students who are uncomfortable in science courses to make a better connection between the study of science and the world. For highly motivated students, this course applies their interest in science to the world around them.

Students develop the ability to research and think about these issues on their own while completing a research project. **Prerequisite: one high school science course.**



Minor Courses

Most minor courses meet for six class hours; however, minor courses which require extended in-class work are listed as 12-hour minors.

ARTS AT ANDOVER



Artists' Books 12 Hours

All Grades

Have you ever wanted to make your own book? If so, this is the art course for you. Students write, illustrate and assemble books in all forms, traditional to experimental. The course concentrates on the visual aspect of sequence but also includes the written form of storytelling. Students learn ways to describe sequence through drawing assignments and visits to the Addison Gallery of American Art. There is emphasis on use of different materials such as handmade paper, paper casting, marbling and collage. Some drawing experience is preferred. (Fee: \$100 to be paid by tuition deadline.)

Seeing Art 6 Hours

All Grades

An art history course that emphasizes **seeing** what the artist is showing us. Students discuss their reactions to and opinions of paintings, sculpture, and architecture from various civilizations. They also explore the messages that art can deliver, messages that include the universal human condition—intelligence, emotions, folly, adventure, the aesthetic, ethic and ethnic diversity and universality of man/woman—all influenced by time and place. Work to be seen ranges from Greek painted pottery, the Roman Colosseum, Brueghel's *Icarus* and Michelangelo's and Bernini's *David* to Grant Wood's *American Gothic* and Marisol's sculpture. (Fee: \$100 to be paid by tuition deadline.)

Studio Art

All Grades

12 Hours

This course introduces the student to painting and drawing with different kinds of media. Emphasis is placed on exercises that break down the elements of a two-dimensional picture plane. The student explores ideas of composition, light and shadow, and subject matter, as well as technique. The process of making art is stressed, not the product. Slides and films, as well as visits to the Addison Gallery of American Art, enrich the student's working context. (Fee: \$100 to be paid by tuition deadline.)

Ceramics 12 Hours

All Grades

The basic hand-building techniques—pinch, coil and slab construction—are learned and used for the first projects, followed by exercises on wheel construction. The final projects allow the student to choose one or a combination of the above techniques. A vocabulary list of ceramics terms, tools and techniques, clay, glazes and firing processes are studied. Slides of pottery from past civilizations are reviewed

to stress the importance and variety of ceramics in the historical context. Also, a reading assignment exploring some aspect of the ceramics world expands the area of exploration for the student. (Fee: \$100 to be paid by tuition deadline.)

Beginning Photography All Grades 12 Hours

An introduction to the principles and techniques of 35mm black and white photography as a vehicle for personal expression. Technical fundamentals including camera operation, film exposure and printmaking are balanced by a survey of photography and its relationship to each student's work. Frequent in-class critiques, discussion and trips to the Addison Gallery's photography collection supplement this rigorous course. No prior photographic experience is expected, but students must have a 35mm camera with a manually adjusted light meter. (Fee: \$100 to be paid by tuition deadline.)

Photography Workshop All Grades 12 Hours

Is it black and white or color? Learn how to alter your prints and make them become antique brown, bright blue, even red. This course teaches students of photography how to manipulate their images. We hand paint, tone, texture and solarize prints. Students learn the process of reticulation, heating film to result in a textured negative. Students are able to combine visual arts and photography. Basics in 35mm photography will be taught. The final project is the creation of a silk-screen image by printing on Kodalith film. The challenge is to push your creative limits. Are you up to the challenge? A 35mm manually adjustable camera is required. (Fee: \$150 to be paid by tuition deadline.)

Development of Western Music All Grades 12 Hours

This course is a survey of Western music from popular to symphonic. The study proceeds chronologically from classical Greece and Rome to the present. In addition to the music, many other arenas of study are explored including painting, architecture, religion and social conditions as they relate to and are reflected by musical style. Students learn to compose in the styles of the people they study; and through exposure to pedagogical piano and giacoso guitar, they are introduced to playing these instruments. Materials for study include musical instruments, videos, computer programs and a text.





History of Jazz 6 Hours

All Grades

Jazz is often described as America's greatest indigenous art form and is now held in higher esteem around the world than it ever has been. Yet as jazz becomes less and less of a presence in popular culture, fewer and fewer people understand and appreciate its unique contribution to the world's culture.

History of Jazz investigates the long and rich history of this music, from its roots in blues and ragtime up to the innovations of today. The course involves reading and writing about the music as well as extensive listening. Students investigate the many roles that jazz has played in our society—from entertainment to art. No previous formal musical education is required.

Playscript Analysis 6 Hours

All Grades

Plays do not exist except in production. Utilizing models of analysis proposed by Aristotle, Francis Hodge and David Grote, students study how to analyze a playscript. Emphasis is on the script not as a literary text but as a blueprint for a fresh new production. All students of theater need to analyze scripts, whether they intend to direct, act, design, build or write for the theater, yet this work is seldom taught and even less often practiced. Perhaps this explains the difference between the well-prepared artist and the myriad of hobbyists. Students learn to break a play down into components such as plot, character, thought, diction, melody and spectacle and prepare each for realization through artistic expression. Readings also include plays by Shakespeare, Beckett and Miller. Students write extensively as a function of analysis.

Film and Society

10-12

ENGLISH

12 Hours

What is the role of popular film in American culture? Does film create, reflect or reinforce societal trends and attitudes? Does a director have a responsibility to portray historical events accurately and not to

portray people stereotypically?

Spike Lee has suggested that film "may be our most powerful medium and should be treated as such." This course does just that as the students view ten films, beginning with "classics" like Casablanca and Dr. Strangelove, and then concentrate on popular films of the seventies and eighties. Students quickly acquire a critical vocabulary, approaching film through an understanding of its technical composition and directorial signature as well as film's function as a cultural narrative with structural conventions and genres. Accordingly, the course takes a hard look at the depiction of societal features ranging from war, business, race and gender to frontier style action and adventure. As many questions are raised as are answered. What makes Indiana Jones such a popular hero? Why is Mississippi Burning an acceptable and popularly acclaimed vision of the civil rights struggle?

Students are asked to become an active, critical audience. In addition to regular in-class discussion, students are responsible for an oral presentation, written film reviews, a journal of personal responses, a partial screen play with plot outline for their own film idea and occasional in-class writings. Readings are excerpted from a variety of current sources. (Fee: \$20 to be paid at first class.)

Basic Exposition

All Grades

6 Hours

Until an idea achieves clear expression in words, it is not a complete idea. The skills of writing and thinking reinforce one another: clear writing aids in clear thinking as much as clear thinking leads to clear writing. Students learn to develop the ideas behind their writing through brainstorming, free writing and attentive revising. They learn the importance of conveying their ideas in forceful, economical sentences and coherent, well-developed paragraphs. The course focuses on crafting sentences and paragraphs that express precisely the relationships among the writer's thoughts.

Students develop their analytical skills through the study of model texts and they learn to analyze and revise their own work through frequent editing exercises. Discussions of relevant grammatical points and composition strategies provide a foundation for students in their development of clear, forceful prose.

Writing About Mathematics All Grades 6 Hours

This course uses various topics in mathematics and applies them to the real world. The writing emphasis is on clear, mathematically logical and persuasive writing about math. Everything from the law of chance to linear modeling to geometry is used. The fundamentals of algebra are the foundation for this course. There is some investigation, experimentation and testing in preparation for paper writing. Various types of research are conducted and computers are used extensively. Prerequisite: Algebra II; a strong interest in math is recommended.

Ethics in Journalism 6 Hours

All Grades

- The son of a prominent family is accused of rape in a case that receives national attention. Is it fair to use his name and not his accuser's?
- Reliable sources tell a reporter that a famous personality is keeping secret the fact that he has the AIDS virus. Is that news?
- A big city newspaper believes there is widespread corruption among city building inspectors. It is determined that the only way to expose it is to use deception; in this case, opening and operating a tavern. Does the end justify the means?

Theseus, the hero of Greek mythology, used a spool of thread to guide him safely through the Labyrinth of the Minotaur. Journalists are not so lucky. They

lack the simple means to help them navigate the ethical mazes that confront them. This course examines such dilemmas, both actual and hypothetical, to try to develop a set of guiding principles. This examination offers students insight into what goes on (or should go on) as well-meaning journalists struggle deciding what to do. As the students discover, often there is no easy answer—no convenient spool of thread.

Writing About Literature

10-12

6 Hours

This course challenges students to think critically and write powerfully about literature. Seminar discussions and daily writing assignments encourage the clear, thoughtful expression of ideas. Students learn the importance of sound reasoning, and it is



through writing in and out of class that they refine their analytical skills.

Different kinds of writing assignments, including personal responses in journals, close reading exercises and literary analyses, expose students to the richness of literature and to the many levels of interpretation. The writing of analytical essays is taught as a process, and students learn how to construct thesis statements and plan cogent arguments through prewriting exercises. Issues of rhetoric, grammar and mechanics are discussed according to the needs of the students.

Students read a range of genres and writers as they explore what it means to call something literature. Genres may include novels, autobiographies, short stories, poems, plays, films and essays.

Etymology and Semantics All Grades 6 Hours

Systematic analysis of the Indo-European components of English words provides a fascinating and effective means of increasing and diversifying vocabulary, examining nuances and evolution of meaning and stimulating imaginative interpretation of experience. This course develops skill in forming and expressing ideas accurately and persuasively and greatly enhances control of vocabulary.

Speech and Debate All Grades 6 Hours

This course prepares students for important moments of their lives: when they interview, when they are trying to persuade a group to see their point of view or when they seek a class office. Learning to organize one's thoughts and to present them effectively are important skills in life. This course teaches these skills through active participation.

Students deliver five different types of speeches and learn how to select a topic, organize the material, control the audience and make an effective deliv-



ery. They learn to offer both praise and constructive criticism as classmates work together to develop and improve each person's speaking abilities.

In the second half of the course, students learn the fundamentals of debate theory and argumentation. As teams, they debate contemporary policy issues. Students view and critique such monuments of oral communication as Dr. Martin Luther King, Jr.'s inspirational "I Have a Dream" speech and the Nixon-Kennedy debates. Whenever possible, the class integrates current events and issues and applies theory and method to the contemporary social and political world.

Daily written homework assignments and oral presentations are evaluated with an emphasis on assessing strengths, weaknesses and tracking improvement. This course assumes no prior knowledge of or familiarity with public speaking or debate.



Contemporary Literature/Contemporary Issues

11-12

6 Hours

This is a course in critical reading and critical thinking. Contemporary literature provides the springboard for critical discussions of issues such as racism, sexism, nuclear war, euthanasia and environmental problems. Essentially, this is a seminar course that requires intensive reading, writing and discussion. Students will be required to write responses to fiction and non-fiction on the topics discussed.

Students entering the course should be competent writers who read at or above the 11th grade reading level. Also, students should be verbally articulate and able to argue and define a particular position or point of view. Most of all, the students need to possess intellectual curiosity and a love of literature.

The Supernatural Novel and Spiritual Reality

All Grades

6 Hours

Works dealing with the supernatural speak to our desire to experience a reality beyond that of everyday existence. Through a close reading of selected works from this genre, we examine how the supernatural world has traditionally been portrayed and explore the questions that are raised by that world: Is reality limited to what we see? How do people experience the supernatural? What spiritual realities do such books assume? Is the conflict between good and evil a supernatural one? What is the relationship between science and the supernatural?

Works we read include classics in the field. This course assumes a willingness to ask fundamental questions in the context of some enjoyable (and frightening!) reading. Students learn to approach the novels as both philosophical statements and works of literature. Films further enhance the reading and provide another depiction of the supernatural world. Frequent writing assignments help further clarify the material.

English as a Second Language All Grades 6 Hours

Students must be enrolled in an ESL major in order to enroll in an ESL minor.

SPEAK UP! Communication is what this class is all about. How do we express ourselves when we are talking to a friend, speaking to an audience, debating an issue? How does the language we choose differ from situation to situation? In this class students develop speaking and listening skills for any occasion. As a group we work together in choosing topics and materials. Each of you has something to say and this class is your chance to say it!

A MULTIMEDIA APPROACH TO AMERICAN CULTURE This course takes a close look at American culture through important historical events and documents of popular culture. A variety of media is investigated to gain a more complete understanding of the United States and its people. We examine American newspapers and see America through a number of films that focus on specific themes in American culture.

THE JOURNALIST This course provides students with the opportunity to explore the world of print and sharpen their writing skills. By reading and discussing articles from popular publications, students examine the ways in which information is communicated to an audience. Students become journalists—they conduct interviews, gather information, and use their creativity and insight to craft news and feature articles, profiles, reviews and more.

VIDEO PRODUCTION This course gives students the opportunity to write, act in, direct, edit and produce their own videos. Students work in groups, drafting, revising and critiquing a script which they then turn into a five- to ten-minute video tape. The subject matter of the videos can range from music to Shakespeare to original material. Each student gets a chance to try his or her hand at every phase of the creative process.

PREPARING FOR THE TOEFL This course helps prepare students to take the Test of English as a Foreign Language, the examination routinely required for admission to American colleges and universities. Listening comprehension, grammar and written expression and reading comprehension skills form the core of the work for this course. There will also be explanations of how the test is structured and a number of practice sessions designed to increase the student's scores in all three areas of the test.





GEOGRAPHY

People and Places: An Introduction to Human Geography 12 Hours All Grades

Commonly misunderstood as simple place name identification, geography seeks to understand not just *where* a feature of the human or physical landscape is found but also attempts to describe that feature in its particular setting and, perhaps most importantly, endeavors to explain *why* that feature is found at that particular location and *how* that feature interacts with other features of that locale.

This course utilizes these elements of geography to examine people and places. In terms of population geography, the course considers how population change varies from place to place. A look at the geography of gender illustrates locational differences in the numbers and treatment of males and females. An examination of the urban geography in the United States and in Latin America reveals strikingly different urban forms and correspondingly varied urban problems. Other topics may include borders and border disputes, the geography of regional inequality and economic development and the processes of spatial interaction. Students develop skills of map utilization and interpretation.

HISTORY, ECONOMICS AND POLITICS

Money, Banking and the Economy

All Grades

6 Hours

What is money? Where did it come from? Most people haven't a clue. This course provides the answers to those questions and moves to an understanding of contemporary money and banking issues as they affect modern economic life.

Economics is everywhere and in everything we do. All decisions involve economics to some extent. The basics of economics are discussed, as well as some specifics of the economy. Topics of study range from the government's role in the American economy, to banking, to international economics. Current issues as well as case studies enrich the study of the economy.

A City on a Hill 6 Hours

All Grades

When John Winthrop and the Puritans first arrived in the New World, they proposed to build "a city upon a hill." Ever since that fateful day, certain Americans have striven to fulfill Winthrop's promise and create an ideal community for the rest of the world to emulate. At the same time, others have attempted to destroy Winthrop's notion and have boldly set forth to establish their own communities. What does it mean to be an American? Why do certain people fit the recipe of the 'melting pot' while others are discarded? This course discusses the myths and stereotypes that exist in America. By using texts and films, such as Ken Burns's Liberty, Eyes on the Prize and The Life and Times of Harvey Milk, the experiences of many Americans are unveiled.

International Relations

11-12

6 Hours

This course is designed to stimulate students' interest in international relations and the complexities of foreign policy. As a result of their experiences in the course, students become more informed respondents to the major international issues of the day and better observers of the world political scene. Strong emphasis is placed on theoretical concepts in foreign policy, the historical background of this field, as well as the realities of international politics in today's volatile world scene.

In addition to regularly assigned readings in the field, students are involved in research projects to ensure their introduction to sources providing a wide range of points of view. Much attention is given to the development of critical thinking and a large portion of the course is devoted to activities that promote student involvement. Students engage in numerous seminars, they present cases as well as act as court members in mock World Court sessions and participate in a major role-playing simulation that involves acting as delegates to a convention which involves speech-making, debating issues, political compromising and decision-making.



LANGUAGE

Introduction to Chinese All Grades 6 Hours

Chinese, a language spoken by over one-quarter of the world's population, is too often thought of as an impossible language to acquire; however, when considered in a systematic fashion, it readily becomes less mysterious.

Covering both the spoken and written language, this course provides an introduction to the phonetic symbols and to pronunciation training, both of which constitute the basis of proper Chinese speaking. At the end of the course students are able to recognize, pronounce and write over 250 Chinese characters.

Practical and lively lessons in conversation include question and answer sessions, vocabulary study with discussion of hieroglyphic characters and Chinese fables, which facilitate the understanding of Chinese sentence and grammatical structures.

Chinese festivities, traditions, poetry and calligraphy are also demonstrated and discussed.

All Grades

Intermediate and Advanced French

6 Hours

This course seeks to build vocabulary as it reviews standard topics in second- and third-year French grammar. Topics include *le passé composé; l'imparfait; le plus-que-parfait; le futur simple; le futur antérieur; le conditionnel, passé et présent; pronoms personnels compléments d'objet direct et indirect; adjectifs et pronoms possessifs; adjectifs et pronoms demonstratifs. All instruction will be in French and will include frequent, short compositions, memorization and dialogue recitation.*

Conversational French

All Grades

6 Hours

This course seeks to build the students' capacity to function competently in everyday situations while reviewing standard topics in third-year French grammar. Topics covered: les temps du passé—le passé composé, l'imparfait et le plus-que-parfait; le futur simple; le futur antérieur; le conditionnel, présent et passé; le présent du subjonctif; pronoms personnels compléments d'objet direct et indirect; adjectifs et pronoms possessifs; adjectifs et pronoms demonstratifs; and idiomatic expressions useful in the situations presented. Students are asked to write frequent, short compositions and dialogues. Classes are conducted exclusively in French.

Introduction to Japanese All Grades 6 Hours

In this fast-paced introductory course students learn to read and write *hiragana* characters (the 46-letter "alphabet") in ten days and *katakana* characters (alternate letter forms) by the fourth week. They also learn 75 *kanji* (derivations from Chinese characters). Each day students study new vocabulary and grammar, using handouts written completely in Japanese. English is seldom spoken in class. By the end of the Summer Session, students are able to introduce themselves, order food, describe locations, speak in present and past tenses, make requests and converse using a variety of verbs and adjectives.

Elementary Russian All Grades 6 Hours

This course provides a sound foundation in speaking, understanding, reading and writing Russian. Students enrolling in this course should expect to give themselves over totally to the direct method, as used at Phillips Academy. Students are expected to use the Russian language, albeit with minimal vocabulary, from the first day of class. Early panic yields rapidly to confidence as vocabulary and

All Grades

knowledge of the structure of the language grows. With no prior knowledge of the language, students have been learning Russian at Phillips Academy since 1955 with great enthusiasm and success. Careful attention to individual needs and supervised practice in the language laboratory guarantee competence and confidence to continue improving a skill which contributes to personal achievement in many areas of vital importance to our country: medicine, technology, commerce, intercultural cooperation and appreciation and reduction of tensions. This is an unusual opportunity to make rapid, substantial progress under expert guidance.

Conversational Spanish All Grades 6 Hours

A course for the student who is eager to speak Spanish and is genuinely interested in improving oral facility. In this class, which is conducted entirely in Spanish, students are given directed conversational exercises which are designed to encourage and enable them to increase their vocabulary and cultural awareness, as well as provide them with the tools for achieving greater fluency. Since grammatical accuracy is also an important goal, the conversational focus is supplemented with grammar explanations and exercises according to the needs of the group. Culturally authentic audio-visual enhancements include tape work in the language laboratory, videos, songs and newspaper and/or magazine articles. This course is best suited for students who have studied Spanish for two years or more.

MATHEMATICS

All mathematics students take a placement test to confirm their course assignments.

Intermediate Algebra 6 Hours

This course is a rapid review of first-year algebra and an in-depth study of many of the topics of second-year algebra. Some of the topics that are covered are polynomials and their operations, operations with algebraic fractions, solving fractional equations, linear equations, inequalities, factoring, solving second-degree equations, simultaneous equations, coordinate geometry, exponents and radicals. It would be helpful to have taken geometry prior to taking this course. Not for students who have completed second-year algebra.

Trigonometry 10–12. 6 Hours

This is an introductory course in circular and trigonometric functions with applications. Students enrolled in this course must have completed two years of algebra. A scientific calculator is required for each enrolled student.

Probability and Statistics All Grades 6 Hours

This course is the study of the traditional topics in an introductory course, including laws of chance, counting, poll-taking and methods of testing. The course is divided between investigation through practical problems and the computer and the development of mathematical background. A student should have completed two years of algebra or should, having completed only one year, be near the top of his/her class with a strong interest in mathematics.

COMPUTER

The Friendly World of Computers

All Grades

6 Hours

There is no escaping our need for knowledge of computers today. Computers are an integral part of our lives, yet some have not experienced them at all, or have had frustrating experiences. This course is a basic, yet intensive, hands-on introduction to the world of computers as tools.

Students learn how to explore computers, enabling them to learn on their own in the future. They are introduced to word-processing programs, graphics (draw/paint) programs, spreadsheet packages and database applications and the advantages of enhancing their work with the use of the computer.

Instruction in the use of hardware such as printers, scanners and modems allows students to experience the creative and technical challenges of using a programming language by writing programs of their own. While appropriate for any grade level, this course is best suited for students who have completed at least one year of algebra.

An Excursion into the World of Fractals

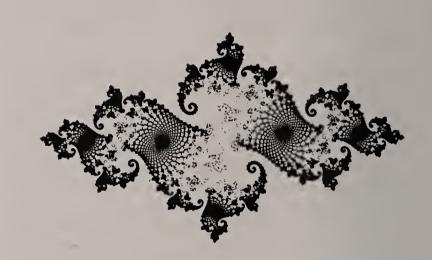
10-12

6 Hours

Daily, we learn of new developments in physics, medicine and computer science. But what about new discoveries in mathematics? We already know everything there is to know about math, don't we? Absolutely not! New and exciting developments in mathematics occur all the time. And one area of current research, dynamical systems, is particularly well suited for investigation. This course is designed to explore the field of dynamical systems, and with the aid of the powerful graphics capabilities of the Macintosh II, generate tantalizingly complex images called *fractals*.

We start by learning the mathematics needed to

generate fractals. Forming the backbone of the course are concepts from precalculus (or a good intermediate algebra course) including quadratic equations, function composition, polynomials and imaginary (or complex) numbers. With those ideas thoroughly reviewed, we study topics specific to dynamical systems: iterative processes, attractors, and finally, the first fractal, the Mandelbrot set. Interested students should have successfully completed two years of algebra and have a strong interest in mathematics. Knowledge of a computer language such as BASIC or Pascal is helpful but not required.



PSYCHOLOGY

Social Psychology

All Grades

6 Hours

Social Psychology provides an exploratory examination of human behavior as it is influenced by, and in turn influences, interactions with other people. Included in this course are topics such as human values, group process, conformity, obedience, social interactions, communication, stereotypes, prejudice, responsibility and personal freedom. A highly interactive classroom approach enhances the students' understanding of these topics. No previous psychology courses are required.

SCIENCE

Advanced Labs in Biology 11–12 12 Hours

This laboratory course features a range of selected topics beginning with diffusion and osmosis, enzyme catalysis, cell division, photosynthesis, genetics and cell respiration. The student becomes familiar with stereoscopic and compound microscopes, microbiological techniques, data analysis and colorimetry. All of these experiments are included in a typical advanced course in biology. **Prerequisite:** one year of biology. (Lab fee: \$20 to be paid at first class.)

Introduction to Electronics All Grades 6 Hours

The topics covered in Introduction to Electronics include direct current, alternating current, semiconductors, power supplies, amplifiers, oscillators and digital electronics. In addition to being exposed to the theoretical foundation behind these subjects, students construct many of the circuits and test their characteristics in a lab situation. Midterm and final projects are designed and built by each student according to her or his particular interests and abilities. The course presupposes no prior knowledge in electronics and only a minimal background in basic algebra.

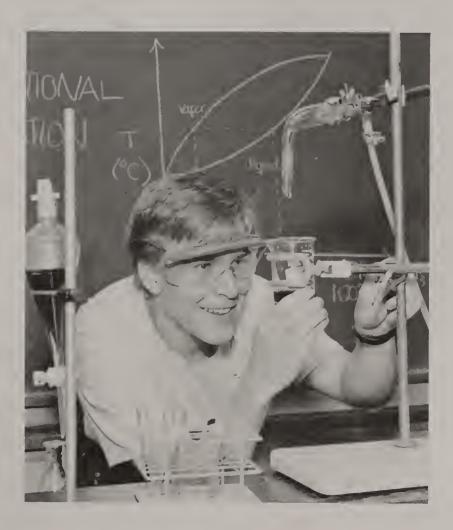
Science and Technology Studies 11–12 6 Hours

Science and technology are present all around us yet we rarely take the time to consider the influence which scientific information has on our lives, nor do we carefully evaluate our use of technology.

This course considers the applications of science and technology in today's society from different points of view.

Through media studies we consider the impact on our understanding of the world around us which the media effects through its reporting of science information. In material culture studies we evaluate the influence of technology on our culture and the influence of our culture in our use of technology.

Medical anthropology and sociology present the power of medical professionals for discussion and initiates an examination of current controversies regarding science.





1993 Summer Session Students

Adams, Roy P.
Bronx, NY
Addimando, Leonidas S.
Canton, MI
Agoston, Judith
Bad Soden, Germany

Aguilar, Miguel Madrid, Spain

Ahn, Stephanie C. *Spring, TX*

Airasian, John M. Watertown, MA

Al-Mufarrej, Dalia Nuzha, Kuwait

Al-Mufarrej, Faisal M. *Nuzha, Kuwait*





Albay, Diana T.
Earlimart, CA

Alcalde, Begona
Madrid, Spain

Alireza, Raaid K.
Jeddalı, Sandi Arabia

Allen, Merritt E.
Rumney, NH

Alvarez, Modesto
Madrid, Spain

Anaya, Samuel
Fort Wortlı, TX

Anghelakis, Dimitri P.
Athens, Greece

Anguiano, Ruben J.

Fort Worth, TX



Aoba, Yumiko *Chestnut Hill, MA*Apolinar, Roger *San Antonio, TX*

Apostolatos, Spiridon Woodside, NY

Araki, Yuko Yokoliama, Japan

Arden, Nilou Bell Canyon, CA

Arthur, Angel Fort Worth, TX

Arunakul, M. Pon Topeka, KS

Arunakul, Nathapong N. *Topeka, KS*

Ashir, Candace Lane *Memphis*, TN

Aspaas, Ardith C. Farmington, NM

Austin, Chad A. Fort Yates, ND

Austin, Marcus Clay Fort Yates, ND

Autry, Norma J. *Bronx, NY*

Azzi, Nazem Y. Lawrence, MA

Bachrach, Tara R. *Pittsfield*, *ME*

Badin, Victor-Alexis *Paris, France*



Bains, Geetanjali (Angela) Chelmsford, MA

Baker, Aran W.

Morrisonville, NY

Bakrie, Aninditha A. *Jakarta, Indonesia*

Balderrama, Jose G. London, England

Bang, Jeannette Yejin *Canton, OH*

Bansal, Shanti L. Londonderry, NH

Baran, Emre Y. *Istanbul, Turkey*

Barel, Francis
Neuilly, France

Barker, Roslyn R. *Chicago, IL*

Barochia, Nisha G. *Billerica, MA*

Batts, Shamarah S. *Fort Worth, TX*

Baumblit-Luybarskaya, Karina Scranton, PA

Bears Ghost, Anya E. Fort Yates, ND

Begay, Enei M. Kayenta, AZ

Belhomme, Reginald *Chicago, IL*

Bell, Erin J.

Burbank, CA

Bellard, Jheri M. *Port Barre, LA*

Beltran, Jesus Fort Worth, TX

Ben-Bassat, Oren M. *Gainesville*, FL

Benatoff, Alex D. *Milan, Italy*

Benzo, Mary F.
Santo Domingo,
Dominican Republic

Berger, Cecile M.
Commugny, Switzerland

Berlanga, Omar H. *Corpus Cliristi, TX*

Berrios, Lymari Aibonito, PR

Betz, Dana Lewisburg, PA

Bibbins, Nicole D. *Chicago*, *IL*

Bigio, Pablo D. San Lorenzo, PR

Blanche, Dominique *Los Angeles, CA*

Bolesky, Kristin A. *Soutliboro*, *MA*

Bolkhovsky, Alexander Framingliam, MA

Bovaird, Lindsey M. *Auburn*, *MA*

Bowers, Zoe Lawrence, MA





Bradley, Cassandra E. *Louisville, KY*

Braley, Kristin M. *Needham, MA*

Bramble, P. David Baltimore, MD

Bravard, Aude B.

Beaumont le Chable,
France

Bravard, Celine E.

Beaumont le Chable,
France

Bravo, Rodolfo A. East Boston, MA

Brewer, Trenille Mylynn *Chicago, IL*

Bridgeo, Monica Ridgecrest, CA

Britton, Adrienne M. *Brooklyn*, *NY*

Brown, Sharlene A. *Brooklyn*, NY

Buchwald, Livia A. *Stuttgart*, *Germany*

Buendia, Marie A. *Mt. Carmel, PA*

Burch, Melody M. Washington, DC

Burgess, Jamila D. Washington, DC

Burgues, Gabriela San Jose, Costa Rica

Burns, Nathan J. L. *Baltimore*, *MD*

Buurma, Rachel S. Summit, NJ

Byun, Hay-Rim *Gillette, NJ*

Byun, James J. Randolph, NJ

Cabral, Manuel J.
Santiago,
Dominican Republic

Caceres, Juan M. Santo Domingo, Dominican Republic



Cafarella, Peter T. Westwood, MA

Cardenas, Claudia I.
San Antonio, TX

Carmichael, Eric Joseph *Baltimore, MD*

Carothers, Deondra Rene' Louisville, KY

Carter, Junelle E. *Brooklyn*, *NY*

Carvounis, Aikaterini *Atliens, Greece*

Case, Katharine E. *Phoenix*, AZ

Casey, Meagan M. Slirewsbury, MA

Cecere, J. Carl Fort Worth, TX

Chae, Kyung-Seok Seoul, Korea



Chalanset, Stephanie *Paris*, *France*

Chalkey, Kelaine M. *Acton, MA*

Chamblee, Naomi D. Kinston, NC

Chan, Brian M. San Diego, CA

Chang, Andrew H. West Windsor, NJ

Chang, Hye-Kyung (Monica) Clark, NJ

Chang, Jason S.

Bloomfield Hills, MI

Chang, Wayne Livingston, NJ

Chen, Iwei Leominster, MA

Chen, Ma-Lung (Joyce) Taipei, Taiwan

Chen, Robert S-L. *Scarsdale*, *NY*

Chen, Tina H-T. *Lincoln, MA*

Cheong, Barry S-M. *Palo Alto, CA*

Cheung, Audrey M. Los Angeles, CA

Chien, Philip K-F. *Irvine*, *CA*

Chiono, Marco *Turin*, *Italy*



Chiono, Renato
Turin, Italy
Cho, Janet
Old Tappan, NJ
Cho, Jennifer H.
Rochester Hills, MI

Cho, Young Lenexa, KS

Choi, Benjamin Y. *Lexington*, *MA*

Choi, John H.

Bloomfield Hills, MI

Choi, Mi
Culver City, CA

Choi, Myun-Sik Seoul, Korea

Choi, Paul Mitchellville, MD

Choi, Paul Tenafly, NJ

Choi, Sara Y.
Blue Bell, PA

Choi, Seung Eun River Vale, NJ

Chou, Lynne C. *St. Louis, MO*

Chow, Vincent D. M. San Diego, CA

Chu, Josephine Lexington, MA

Chung, Susan Bergenfield, NJ

Chung, Ted G. Naperville, IL

Ciszek, Jacquelyn M. *Nashua*, *NH*

Clark, Steven A. *Dallas*, TX

Coachman, Porchia C. *Hartford*, *CT*

Colby, Alison J. Harvard, MA

Comey, Margaret D. *Glen Ridge, NJ*

Conover, Emily Cali, Colombia

Cooper, Autumn *Cambridge, MA*

Cox, Kairis A. St. Albans, NY

Cremades, Anne C. *Paris, France*

Cuellar, Anna C. *Laredo, TX*

Cunningham, Heather L. Etna, NH

Cunningham, Meredith *Etna*, *NH*

Curtis, Isma'il Louisville, KY

Dahl, Julia E. *Fresno*, *CA*

Dalrymple, Nancy J. *Amherst*, *NH*





Dang, Sandy Brooklyn, NY

Daniel, Jeremy L. Bloomfield, CT

Darwish, Federico *Perugia, Italy*

Davis, Martina M. *Chicago*, *IL*

De Bourbon, Philippe *Paris, France*

de Gubernatis,
Berengere J.
Juan Les Pins, France

de T'Serclaes, Jean-Werner *Paris, France*

De Torres, Macarena B. *Madrid, Spain*

De Vasconcelos, Pedro *Rio de Janeiro, Brazil*

Debre, Benjamin Paris, France

Delgado, America M. *Lowell, MA*

Denton, Elizabeth C. *Dallas, TX*

Desgranges, Daphne East Meadow, NY

Dhabhar, Farhad P. *New Hartford, NY*

Dhillon, Amrita K. *Fresno, CA*

Diaz, Edwin A. *Brooklyn*, NY



DiFonso, Judy E. Los Angeles, CA

Diggs-Jordan, Sean Christopher Baltimore, MD

Dixon, Katherine L. *Ontario*, *Canada*

Dong, Julius Vancouver, Canada

Dosunmu, Folarin S. *Chicago, IL*

Dowdell, John L. Santa Ana, CA

Dowding, Edward C. Wiltshire, England

Duong, My T. *Lawrence, MA*

Duprey, Julien *Lisses, France*

Durant, Lawrence C. *Pensacola, FL*

Dutertre, Xavier G. *Yvelimes, France*

Edmonds, Joseph L. *Baltimore*, *MD*

Elafros, Constantine S. *Athens, Greece*

Erbsen, Heidi A. *Studio City, CA*

Erden, Yasemin P. *Istanbul*, *Turkey*

Esser, Christian J. M. Dusseldorf, Germany

Evain, Emmanuelle S. *Verrieres le Buisson, France*

Fadle, Mahir A. *Arlington, VA*

Fajardo, Daffany Lawrence, MA

Falkof, Andrew J. Wayland, MA

Fan, Chueh Wei (Sharon) Tenafly, NJ

Fan, Mandy M-W. Hong Kong

Farr, Melissa T. *Chicago, IL*

Fatouros, Maria A. *Lexington, MA*



Feliciano, Francisco J. *Arecibo, PR*

Feliu, Jordi J.

Republic of Panama

Fernandez, Eva L. *Carolina, PR*

Finley, Delvecchio S. *Atlanta, GA*

Fitek, Diana J. Harvard, MA

Forgenie, Christal-Joy P. *Brooklyn*, *NY*

Forrest, Nollaig A. *Geneva, Switzerland*



Foster, Daniel D Marlboro, MA

Fred, Rebecca Janice *Kykotsmovi*, *AZ*

Fredericks, Manuel R. *Kykotsmovi*, *AZ*

Friedman, Joshua J. *Chelmsford, MA*

Fryer, Landis Garrel *Chicago, IL*

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Avery, Bernetta, B.A. $TA \text{ in } (MS)^2$



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Belcher, Julius M. *Photography*

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Language

Perry, S. Maria S., B.A. English as a Second Language, House Counselor

Picanso, Martha, B.A.

TA in English as a Second
Language

Pierce, Derek, Ed.M. Film

Plumb, Susan, B.A.
English as a Second
Language, House
Counselor

Poduska, Kristin, B.A.

TA in English as a Second
Language

Pottle, David, Ph.D. *Dean of Students*

Pottle, Heather, B.A.

Director of the Language

Lab, Deans' Assistant

Powell, Timothy, M.A.
English as a Second
Language, House
Counselor

Quattlebaum, Edwin, Ph.D.

Assistant to Director of
Social Functions

Quattlebaum, Ruth, M.A. Dean of Students

Rabetz, Samantha, B.A. *TA in English, Film*

Rabin, Elaine, B.A. *TA in Science, Economics*

Rees, Kevin, B.A. *TA in Mathematics*

Richardson, Malik, B.S. *TA in (MS)*²

Robb, Mary, B.A.

TA in History, Speech and
Debate

Roche, Aimeclaire, B.A. *English, House Counselor*

Rogers, John, A.M. *OCEANS*



Rogers, Susan, M.A.

Coordinator of Studio Art

Program

Rolbin, Cyrus Paul, B.A. *Japanese*

Salas, Angela, M.A.Ed. English, House Counselor



Savage, Virginia, Ph.D.
Psychology, Morning
Encounter Program
House Counselor

Savio, Mary Beth, B.A. *TA in (MS)*²

Schaphorst, Kenneth, D.M.A. *Pluysics, Electronics*

Schussel, Jennifer *TA in (MS)*²

Scott, Anthony, M.A. (MS)² Mathematics

Sheehan, Cathleen, M.A. *TA in (MS)*²

Shichtman, Diane, M.A.

Physics, Computer

House Counselor

Smedley, Rebecca, B.A.

TA in English as a Second
Language

Solomon, Patricia, B.A. Euglish, House Counselor

Stableford, Jennifer, B.A. *TA in Psychology*

Stevens, Mary, B.A. College Counselor

Sticherling, Monika
Assistant to Coordinator of
International Student
Program

*Sullivan, Lynne, B.S. Coordinator of Outdoor Adventure Program Tanyolu, Ebru, B.A. $TA in (MS)^2$

Thompson, Stephen, J.D. *Physics*

Torrence, Anthony, B.A. *English House Counselor*

Tousignant, Catherine, B.A. *English House Counselor*

Tsui, Lisa, B.A. *TA in Philosophy*

VanLonkhuyzen, Harold, M.A. English

Virrill, Cameron, M.Ed.

English as a Second

Language

House Counselor

Waldron, Caroline, B.A.
English
House Counselor

Walker, Edith, M.A. (MS)² Mathematics

Watt, Peter, Ph.D. (MS)² Pluysics

Weems, Alonzo, B.A.
English as a Second
Language
House Counselor

Welbon, Anita, M.Ed., M.A.

English

House Counselor





Whitten, Russell, M.A.
Morning Encounter
Program
TA in ESL

Williams, Vayesha, B.A.
English as a Second
Language
House Counselor

Wilson, Amy, B.A. *TA in (MS)*²

Yaffe, Jason, B.A.

TA in English as a Second
Language

Yocum, Denise, Psy.D. *Psychological Counselor*

Zimmerman, Karen, M.A.

English

House Counselor

Zimmerman, William, M.A.

Philosophy, English

1993 Enrollment and Geographic Distribution

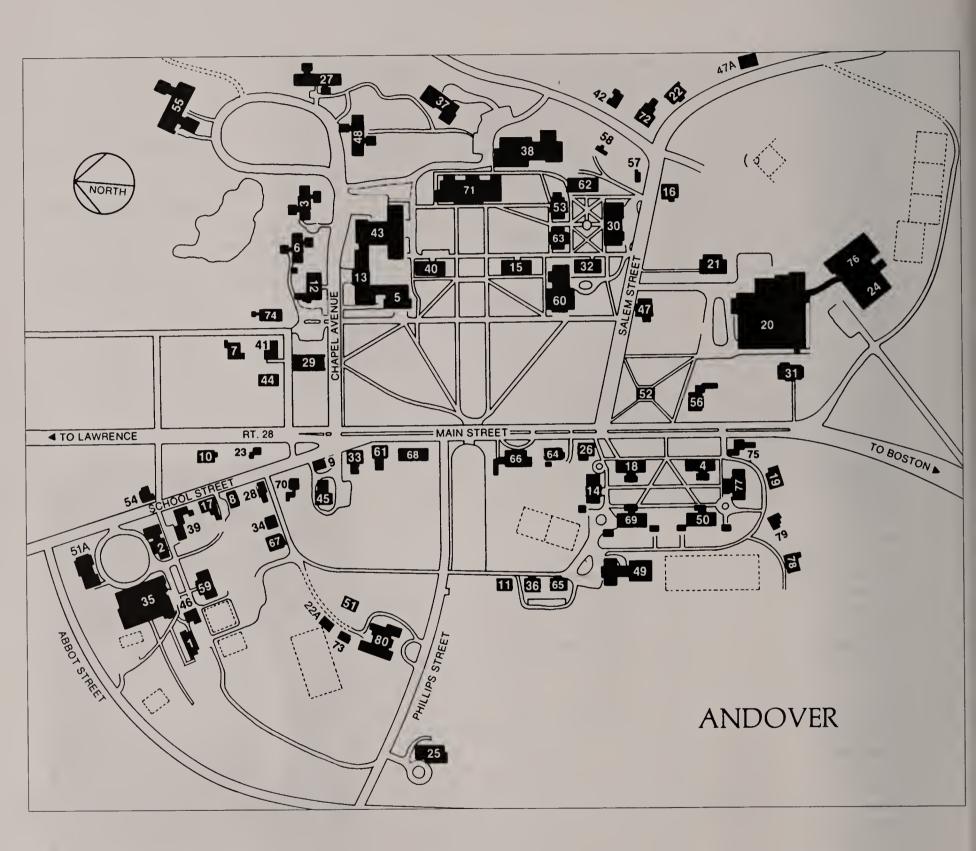
Texas
Virginia
Washington
West Virginia
Wisconsin

Wyoming

Alaska	1	Belgium	4
Arkansas	2	Brazil	3
Arizona	12	Canada	2
California	71	Canary Islands	1
Colorado	2	Colombia	2
Connecticut	7	Costa Rica	1
District of Columbia	5	Dominican Republic	3
Florida	15	England	2
Georgia	8	France	26
Hawaii	4	Germany	22
Illinois	27	Greece	4
Indiana	1	Honduras	1
Kansas	3	Hong Kong	3
Kentucky	9	Indonesia	2
Louisiana	3	Italy	14
Maine	3	Japan	20
Maryland	14	Kenya	1
Massachusetts	108	Korea	11
Michigan	9	Kuwait	2
Minnesota .	2	Mexico	2
Missouri	2	Netherlands	2
Mississippi	1	Puerto Rico	9
New Hampshire	8	Republic of Panama	3
New Jersey	30	Saudi Arabia	1
New Mexico	7	Spain	10
New York	60	Sweden	1
North Carolina	5	Switzerland	3
North Dakota	3	Tahiti	1
Ohio	18	Taiwan	5
Oklahoma	1	Turkey	5
Oregon	2	Venezuela	1
Pennsylvania	8		167
Rhode Island	1		107
South Dakota	1		
Tennessee	5		
	21		

Class Distribution			
	Boys	Girls	Total
Rising 9th graders	11	11	22
Rising 10th graders	63	82	145
Rising 11th graders	123	195	318
Rising 12th graders	79	101	180
	276	389	665
Boarding students	270	376	646
Day students	6	13	19
	276	389	665





Campus Map

1 Abbey House* Abbot Hall 2 Adams Hall* Addison Art Gallery 5 8 Alumni House* 10 America House* 11 Andover Cottage* Andover Inn Arts and Communications Center 17 Bailey House* 14 Bancroft Hall* 15 Bartlet Hall* Benner House 16 Bishop Hall* 18 Blanchard House* 19 Borden, Memorial and Abbot Gymnasiums 21 Bulfinch Hall 22 Burtt House* 22A Carriage House* 23 Carter House* Case Memorial Cage 24 25 Chapin House 26 Churchill House Clement House* 28

Cochran Chapel

Cooley House

32 Day Hall*

Commons (Dining Hall)

29

31

Draper Cottage* Draper Hall 35 Eaton Cottage* 36 **Evans Hall** Flagg House* 39 Foxcroft Hall* 40 French House* 41 42 Frost House* Fuess House* 27 George Washington Hall Graham House 45 Graves Hall 46 Hall House* 47 Hardy House 47A Hearsey House* Isham Infirmary* 49 Johnson Hall* 51 Junior House* 51A McKeen Hall 52 Memorial Bell Tower 53 Morse Hall 54 Morton House* Nathan Hale House* 55 56 Newman House* 57 Newton-Hinman House Nineteen Twenty-Four House

59 Office of Physical Plant

61 Park House

60 Oliver Wendell Holmes Library

Double Brick House*

62 Paul Revere Hall* Peabody Foundation and Archaeological Museum 63 Pearson Hall 64 Pease House* 65 Pemberton Cottage* 66 Phelps House Phillips Hall 67 Power Plant Rockwell Hall* 69 Samaritan House* Samuel Phillips Hall Smith House* Stearns House* 6 Stevens House* Stimson House* Stott Cottage Stowe House* 74 Stuart House* 37 Sumner Smith Hockey Rink Taylor Hall* Thompson House* Tucker House* Whitney House* Williams Hall*

*Dormitory

Index of Courses

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Critical Reading and Writing
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Creative Writing
Writing the Personal Essay
Journalism: The Media Mirror
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Writing
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An Introduction to Economics
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Probability and Statistics

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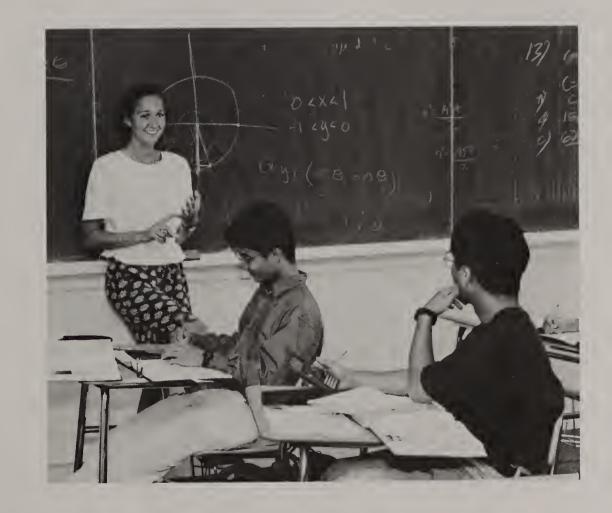
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Application Forms

Follow all instructions properly to complete the Summer Session application packet. Please return all application materials in the large envelope provided in the back of this catalogue.

- 1. Fill out application form 1 completely and attach the non-refundable \$30 application fee (International students pay \$45). Checks should be made payable to the Trustees of Phillips Academy and must be drawn on a U.S. bank in U.S. funds. U.S. banks now refuse to cash checks denominated in foreign currency. International students, please refer to separate International Student Information Sheet for payment guidelines.
- 2. Autobiography: Without help, please write a letter in which you introduce yourself. Since the autobiography is used in lieu of an interview, please be as complete as possible and discuss the following: interests, activities (extra-curricular, community, athletic) or experiences you enjoy or value most. What are your reasons for wishing to attend the Phillips Academy Summer Session? What contribution to society would you most like to make?

Students applying for the English as a Second Language Program: Please write your essay yourself, in English.

- 3. Forms 2, 3 and 4 are to be given to your counselor and teachers with an envelope for each. To ensure confidentiality, ask that each form be placed in an envelope which should be sealed and signed across the seal.
 - Request that your guidance counselor fill out form 2 and include a copy of your complete transcript including the most recent ('93–'94) grades.
 - Ask two *current* teachers to fill out **forms 3 and 4** (teacher recommendations). Mathematics applicants are encouraged to give form 3 to a current math teacher.
- 4. Thoroughly read the descriptions of afternoon activities on form 5. Then, according to the directions, list your first four choices in order of preference.
- 5. Assemble all of the above materials in the envelope provided (use the check list on front of envelope) and return to Phillips Academy Summer Session. Affix adequate postage for the application packet.

Please Remember: No application for admission will be considered until all materials have been received (including current grades on transcript).

Financial aid applicants: Your completed application and Financial Aid Form, which includes *the most recent* IRS Form 1040, is due in the Summer Session Office no later than March 1.

ENTRANCE APPLICATION

1994 Summer Session

Phillips Academy, Andover, Massachusetts 01810-4166

1

TO BE FILLED OUT BY APPLICANT AND SIGNED BY PARENT (Please Print)

1.	Name		Sex	June Age	Date of Birth	
	Last (Family) First	Middle		, 0		Mo/Day/Year
	usually called		Social Sec	urity #		
2.	Home Address	City		tate	Country	Zip Code
	Mailing Address (if different) or P.O. Box #_					
3.	NAME AND ADDRESS OF PARENTS OR GUAI	RDIANS WITH	WHOM WES	SHOULD CORR	ESPOND	
	Title: (such as Mr. and Mrs.)					
	Name					
	Home Address					
		Street an	d Number			
	City	State		Country	Z	Lip Code
	Telephone: Home ()		Business ()		_
4.	Present School			Grad	le next September	
5.	School Address					
	Street and Number	City		State	Country	Zip Code
6.	Is this school residential? Yes □	No □				
7.	Name of Guidance Counselor					
8.	Refer to "Academic Requirements" in the ca	atalogue for g	guidance in c	hoosing your	courses.	
	Since on occasion it is necessary to cancel a popular courses fill up quickly, and since it the applicant select courses carefully and list	is not possible	le to offer mu	ultiple sections	in all courses, it i	ften happens tha s imperative that
	MAJOR COURSE CHOICES		MINOR	COURSE CHO	DICES	
	1st		1st			
	2nd		2nd			
	3rd		3rd			
	4th		4th			

9.	International Students: Please fill in the following information carefully:		
	How many years have you studied English?		
	Date of birth Country of birth Country of C	itizenship	
	Do you have a U.S. or Diplomatic passport? Yes □ No □		
	I–20 Immigration forms will be sent to you for completion after you have confirmed yo	our intention to	attend.
10.	Financial Aid Applicants: Do you require financial aid from the Summer Session? Please apply for aid only if it is absolutely necessary. (Aid applicants must include the pink Application for Financial Aid. Ask for this form immediately if you need one since the ENTIRE ENTRANCE APPLICATION AND FINANCIAL AID FORM must be received in the Summer Session office by March 1.)	YES	NO
11.	Are you applying as a Day Student? (See page 10.)		
12	Are you also applying to the 1994–95 academic year at Phillips Academy?		
13	Do you have any relatives who are graduates, students, former Summer Session students or employees of Phillips Academy? (If so, give name(s), relationship to you and relationship to the academy.)		
14	How did you become aware of the Summer Session?		
15	Please list other summer programs you have attended.		
Si	gnature of parent or guardian	Date	
Si	gnature of applicant	Date	
	ease place this application, together with the rest of the application material, in the enve	,	

of the catalogue and return to:

Maxine S. Grogan

Dean of Admission

Dean of Admission THE PHILLIPS ACADEMY SUMMER SESSION Phillips Academy Andover, MA 01810-4166

2

SCHOOL REPORT 1994 Summer Session

Phillips Academy, Andover, Massachusetts 01810-4166

TO BE FILLED OUT BY YOUR GUIDANCE COUNSELOR AND RETURNED WITH YOUR LATEST TRANSCRIPT. (If your school has no guidance counselor, have this form filled out by a principal or headmaster.) All application materials should be returned in the large envelope provided in the back of the catalogue.

i ippiicuiti s i tuiii	e Last	First	Middle
. 1			
Applicant's Addr	ess		
Guidance Counse	elor's Name		
		Please print	
designed for very students from all each day, in class extend his or her	able students. The Phillips Acac sections of the United States and and in preparation. The purpose	demy Summer Session, an inte I foreign countries. The acaden e of the Session is to offer the a y weaknesses in an area of diffi	and girls. Its rigorous program is gral part of Phillips Academy, accepts nic program requires six to eight hours ble student an opportunity to deepen iculty. Life in the Summer Session astant supervision.
Dear Gui	dance Counselor:		
would ap	ly attention is crucial to the applopreciate your greatest dispatch. Ons Committee.		ps Academy Summer Session. We se before consideration by the
Please pr	ovide the following information:	:	
	her latest transcript, including t rm grades are acceptable.)	the current year's grades . (If se	emester grades are not available,
2. All red	cent significant achievement and	aptitude test results.	
3. Numb entire	er of students in candidate's ent grade. (Please estimate if exact r	ire grade. Exact or approximat ank unavailable.)	e rank (by decile) from top in
4. Please	check: This student is in an sses are not sectioned	□ honors □ adva	nced □ standard level
□ Clas		, please check the following:	

In relation to others in the candidate's age group who please substitute a written statement describing the continuous control of the control		m, please che	ck the appr	opriate bo:	x for each itei	n below, or
	Truly Outstanding	Excellent	Good	Fair	Below Average	Insufficient Evidence
Academic Qualities	8				Ü	
Academic Potential						
Academic Achievement (as compared to pote	ntial) 🗆					
Reading Skill and Interest						
Written Expression						
Oral Expression						
Study Ĥabits						
Initiative						
Curiosity						
Personal Qualities						
Seriousness of Purpose						
Common Sense						
Peer Compatibility						
Warmth of Personality						
Concern for Others						
Self-esteem						
Independence						
Self-discipline						
Willingness to Live within the Rules						
Reaction to Criticism						
Honesty/Integrity						
Emotional Stability						
Energy						
Overall Rating:						
As a Student						
As a Person						
Signed		Posit	ion			
School Address						
(School name)			(Stree	et)		
(City) (State)	(Zip)		ol Tel. No. selor's Off		t	
		(if dif	ferent)	()_		
How long have you known applicant; in what r	elationship?					

Candidate's Name

Thank you for your help in completing this form. Please make sure that you have signed the envelope across the seal for confidentiality.

TEACHER RECOMMENDATION

1994 Summer Session

Phillips Academy, Andover, Massachusetts 01810-4166

TC	BE FIL	LED OUT BY	A CURRENT	TEACHER
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		11 COLUMN 11	I LI I CI I I

	LED OUT BY A CURRENT TEACH			
All applica	ation materials should be returned	d in the large enve	elope provided in t	the back of the catalogue.
PLEASE PI	RINT			
Applicant'	's Name	F	irst	Middle
Teacher's	Name			
designed f students fr each day,: extend his	for very able students. The Phillip rom all sections of the United Stat in class and in preparation. The p	es Academy Sumn tes and foreign co ourpose of the Sess remedy weakness	ner Session, an into untries. The acade sion is to offer the es in an area of dif	and girls. Its rigorous program is egral part of Phillips Academy, accepts mic program requires six to eight hours able student an opportunity to deepen of ficulty. Life in the Summer Session onstant supervision.
Yo wo Ad	ould appreciate your greatest disp Imissions Committee. We seek to create a pleasant sur	eatch. Application	s must be complet in which faculty a	
1.	Success in a demanding program	m		
2.	Contributing to the community	life of the Summe	er Session	
3.	Please check: This student is in	an 🗆 honors	□ advanced	□ standard level

In relation to others in the candidate's age group who please substitute a written statement describing the co		n, please che	ck the appr	opriate bo.	x for each ite	nı below, or
	Truly	F 11 (C 1	T.	Below	Insufficient
Academic Qualities	Outstanding	Excellent	Good	Fair	Average	Evidence
Academic Potential						
Academic Achievement (as compared to poter						
Reading Skill and Interest						
Written Expression						
Oral Expression						
Study Habits						
Initiative						
Curiosity						n
Personal Qualities	_	_				
Seriousness of Purpose						
Common Sense						
Peer Compatibility						
Warmth of Personality						
Concern for Others						
Self-esteem						
Independence						
Self-discipline						
Willingness to Live within the Rules						
Reaction to Criticism						
Honesty/Integrity						
Emotional Stability						
Energy						
Overall Rating:						
As a Student						
As a Person						
Signed		Positio	on			
School Address						
(School name)			(Street	!)		
		School	l Tel. No. ()		
(City) (State)	(Zip)				,	
How long have you known applicant; in what re	lationship?					

Candidate's Name

Thank you for your help in completing this form. Please make sure that you have signed the envelope across the seal for confidentiality.

TEACHER RECOMMENDATION

1994 Summer Session

Phillips Academy, Andover, Massachusetts 01810-4166

4

TO BE FILI	LED OUT BY A CURRENT TEACH	ER		
All applica	ntion materials should be returned	l in the large env	elope provided in	the back of the catalogue.
PLEASE PI	RINT			
Applicant ^e	's Name		First	Middle
Teacher's	Name			
designed f students f each day, extend his	for very able students. The Phillip rom all sections of the United Stat in class and in preparation. The p	s Academy Sum es and foreign co urpose of the Ses emedy weakness	mer Session, an infountries. The acade sion is to offer the ses in an area of di	s and girls. Its rigorous program is tegral part of Phillips Academy, accepts emic program requires six to eight hours able student an opportunity to deepen or fficulty. Life in the Summer Session onstant supervision.
Yo wo Ad	ould appreciate your greatest dispositions Committee. We seek to create a pleasant sum	atch. Applicatior	is must be comple $\frac{1}{2}$ in which faculty a	
1.	Success in a demanding program	n		
2.	Contributing to the community	life of the Summ	er Session	
3.	Please check: This student is in Classes are not sectioned	an 🗆 honors	□ advanced	□ standard level

In relation to others in the candidate's age group who please substitute a written statement describing the		n, please che	ck the appi	ropriate bo.	x for each itei	n below, or
	Truly Outstanding	Excellent	Good	Fair	Below Average	Insufficient Evidence
Academic Qualities	8					
Academic Potential						
Academic Achievement (as compared to pote	ntial) 🗆					
Reading Skill and Interest						
Written Expression						
Oral Expression						
Study Habits						
Initiative						
Curiosity						
Personal Qualities						
Seriousness of Purpose						
Common Sense						
Peer Compatibility						
Warmth of Personality						
Concern for Others						
Self-esteem						
Independence						
Self-discipline						
Willingness to Live within the Rules						
Reaction to Criticism						
Honesty/Integrity						
Emotional Stability						
Energy						
Overall Rating:		-	-			
As a Student						
As a Person						
Signed		Positi	on			
School Address						
(School name)			(Stree	rt)		
		Schoo	l Tel. No.	()_		
(City) (State)	(Zip)					
How long have you known applicant; in what re	elationship?					

Candidate's Name_

Thank you for your help in completing this form. Please make sure that you have signed the envelope across the seal for confidentiality.

AFTERNOON ACTIVITIES

1994 Summer Session

Phillips Academy, Andover, Massachusetts 01810-4166

The Afternoon Activities program meets Monday, Tuesday, Thursday and Friday afternoons (60–90 minute sessions). EACH STUDENT MUST TAKE PART IN AN ACTIVITY. All activities are instructionally and recreationally based. The program is divided into two three-week sessions. At the end of the first three-week session, most students are assigned to a new activity. Those desiring to stay in the same activity for both three-week sessions may do so only if that activity is undersubscribed for the second session and if the coach gives permission. All activities are open to both boys and girls.

ANY SPECIAL DRESS, EQUIPMENT OR EXPERIENCE IS NOTED IN THE ACTIVITY DESCRIPTION.

Aerobic	Dance
Ex	cercise

Aerobics is a serious yet entertaining way to improve cardiovascular fitness, balance, strength and flexibility. Classes are taught to music and include both low and high impact aerobics. Two levels are offered. Aerobics shoes, while not required, provide support and cushion the feet.

Basketball

Boys and girls work on the skills of the game and are organized into teams to compete on an intramural basis.

Dance

No experience is necessary. In dance the emphasis is on communication through movement and improvisation. Some modern ballet and jazz techniques are taught.

Jazz

Open to student musicians whether they have played in a jazz band before or not.

Outdoor Adventure

This outdoor, adventure-based program uses proven techniques to challenge students mentally, emotionally and physically. Faced with many unfamiliar situations and problems, the students build self-confidence and learn new outdoor skills that stay with them for a lifetime. Activities include map and compass, technical climbing skills and equipment usage, ropes course participation, still-water canoeing and other group-oriented, problem-solving situations. The only equipment needed is old clothes and a pair of old sneakers. (Supplemental fee of \$50 to be paid to the athletic office upon arrival.)

Physical Fitness

This program is designed to improve muscle tone, strength, endurance and flexibility. It can be both a pre-season conditioner for athletes or a fitness program for others. Activities include weight training, running, agility drills and calisthenics. Everyone is welcome, but participants should prepare for a rigorous, demanding activity.

Power Walking

Whether one has experience or not, this activity involves one in an exciting Olympic sport.

Running

This is an afternoon activity for any kind of runner, even joggers, and for the beginner as well as for the most experienced. Each participant runs with her/his chosen group: slow, medium or fast, but all students will be expected to stretch and run, using this experience as a chance to improve their endurance. Students must wear proper running shoes.

Soccer

Players are organized into teams and receive some instruction in the rudiments of the game. There are numerous skill levels, and everyone will find a proper niche. There is also a Monday-night game for faculty and students. Both boys and girls must bring molded cleats. Shin guards are required and may be borrowed from the athletic stockroom.

Softball	1	* *	n the fun of it and for c ng their own gloves.	competition. Instruction	is available for
Squash	This sport is offered as a free play activity, but instruction is given to those who want it. The school furnishes the balls and the players supply their own racquets which can be purchased here (under \$25) or rented. Players must also have shoes with non-marking, light colored soles.				
Stage Crafts	In the newly renovated and sophisticated theater spaces, enrolled students construct the sets for the major class, Play Production. Participants develop and utilize skills in stage carpentry, prop construction, scene painting, programmed lighting, costuming and digital sound. During the final production, students serve as running crew, light-board and sound-board operators.				
Styxball	This is a co-ed running game involving throwing and catching a ball with a stick called a "crosse." I is a hybrid of girls' lacrosse and boys' lacrosse, without the latter's roughness and with something of the former's grace and "continuous motion," a combination which has proved very popular in the Summer Session. Styxball requires a special ball and stick which are provided each player by the school at no cost.				
Swimming	Swimming takes place in the indoor, six-lane pool. Swimmers are required to have nylon or other synthetic fabric swimming suits. Those with long hair must wear bathing caps. The group is divided into beginners, advanced beginners and competitive swimmers. Almost all beginners can learn how to swim in three weeks.				
Tennis	The tennis program consists of both instruction and recreational play at the beginning, intermediate and advanced levels. Players must provide their own racquets and tennis balls.				
Ultimate Frisbee	Ultimate frisbee is a team sport resembling soccer, played with a frisbee. It's an exciting and invigorating game. Basic skills are reinforced daily.				ing and
Volleyball	Open to everyone and played for both the fun of it and for competition. Instruction is available for those who need it.				
the Summer Sessi activities fill up q have confirmed y	ion. Assignments a uickly. You will be	re made according to e notified of your acti end the Summer Sess	the date your complet vity assignment for the	noon Activity for the firs ted application is process e first 3-week segment by s begin, students have th	sed. Popular mail after you
instru If one of	uctional swimming your preferences is	or competitive swims Tennis, please indic	iming.	orefer beginner or advan er beginning, intermediat u play.	
1st Choi	ce				_
2nd Cho	ice				_
3rd Cho	ice				_
4th Choi	ce				
				Age:	Sex:
	Last (Family)	First	Middle		

Maxine S. Grogan
Dean of Admission
The Phillips Academy Summer Session
Phillips Academy
180 Main Street
Andover, MA 01810-4166

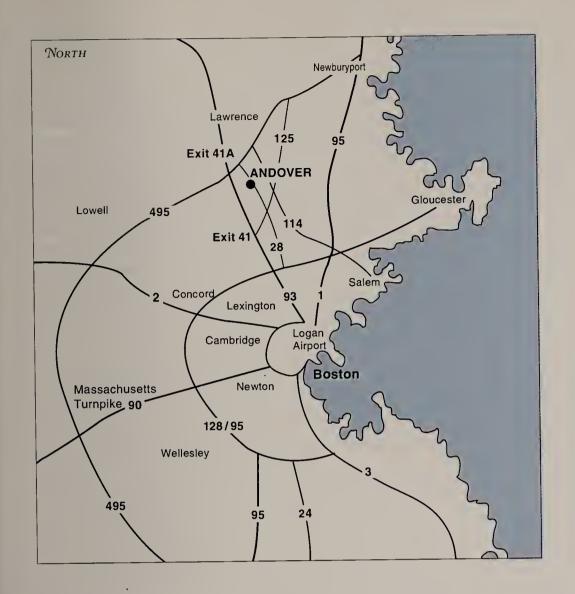
ENCLOSURES:

- ☐ Form 1 Application
 - Application Fee
- ☐ Current Transcript

Form 2 Counselor Recommendation

- Form 3 Teacher Recommendation
 Form 4 Teacher Recommendation
- ☐ Form 5 Afternoon Activity Selection
 - □ Autobiography





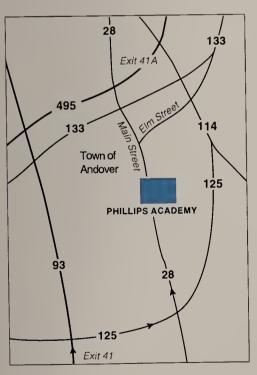
TRAVELING TO ANDOVER

If traveling by car from Boston, take Route 93 north for about 19 miles. Take Exit 41, then turn right (east) on Route 125 for 2 miles. Turn right onto Route 28 and go north about 4 miles to the Phillips Academy campus. Turn right at the Bell Tower on the corner of Route 28 and Salem Street. Turn left on Highland Road and then left up first campus road on left. The Summer Session office is marked by a sign at the road's edge beyond the parking lot.

If driving from Logan Airport, follow the signs to Boston via the Sumner Tunnel and follow Route 93 north signs.

From Route 495 north or south take the exit marked "Andover" and proceed south on Route 28 through the town of Andover. The Phillips Academy campus is approximately one mile south of the Andover center. Turn left on Salem Street, by the Bell Tower.

The Trombly Commuter Lines, Inc., runs buses to Andover from the Transportation Building on Charles Street, Park Square, Boston. Visitors should call the bus company at (508) 686-9577 for up-to-date information.



INNS AND MOTELS IN THE AREA

Andover Inn Chapel Avenue, Andover (508) 475-5903

Andover Marriott 123 Old River Road, Andover (508) 975-3600 (At Rte. 93) (800) 228-9290

Courtyard by Marriott 10 Campanelli Drive, Andover (508) 794-0700 (Next to Marriott) (800) 321-2211

Hampton Inn 224 Winthrop Avenue, Lawrence (508) 975-4050 (Rte. 114 at Rte. 495)

Holiday Inn–Tewksbury 4 Highwood Drive (508) 640-9000 (Rte. 495 & Rte. 133) Ramada Hotel Rolling Green 311 Lowell Street, Andover (508) 475-5400 (Junction Rtes. 93 & 133)

Residence Inn by Marriott 1775 Andover Street, Tewksbury (508) 640-1003 (Off Rte. 495)

Susse Chalet 1695 Andover St., Tewksbury (508) 640-0700 (Rte. 133 & 495) (800) 524-2538

Tage Inn 131 River Road, Andover (508) 685-6200 (at Rte. 93) (800) 322-8243



PHILLIPS ACADEMY, ANDOVER, MASSACHUSETTS